PRINTING PRODUCTION

MAY 1960

IN THIS ISSUE:

Our Experiences With Wrap-Around Printing

PROPER SHINES ON MANY JOBS

AND IDEAS ON DISPATCHING

POCKETS FOR SMALL LITHO FIELD

ARE DETERMINES YOUR PROFITS

PUBLICATION PLANT SCHEDULING

THE PRODUCTION MAGAZINE FOR PRINTERS AND LITHOGRAPHERS

PROBLEM

TO PRODUCE MORE COMPOSITION WITHOUT INCREASING OVERHEAD.

ANSWER

INSTALL A STAR SELECTRO-MATIC QUADDER ON YOUR "WHITE SPACE" LINECASTING EQUIPMENT...

Every machine in your shop which handles two hours a day of "white space" composition should have a Selectro-Matic Quadder, because it will pay for itself in production time saved in about a year. The versatile Star Selectro-Matic Quadder is designed for automatic operation from tape signals, or manually by a convenient push-button selector. The operator can change signals faster because the Selectro-Matic Quadder has a built-in memory system. "Widow" lines are automatically flushed left, either from tape or manual operation . . . but this is only part of the Star Selectro-Matic Quadder story . . . there's a great deal more. Why not start now by writing for further information. Naturally, there's no obligation.

Precision TRADE ★ MARK Parts ®

STAR PARTS, Inc.

SOUTH HACKENSACK, N. J.

BRANCH: 1327 BROADWAY, KANSAS CITY, MO. **AGENCIES:** CHICAGO MINNEAPOLIS • LOS ANGELES • DENVER • SO. ACTON, MASS. • STAR PARTS (LINECASTING) CANADA LTD. MONTREAL AND AGENTS OVERSEAS

For More Information Circle 167 on Reader Service Card

for PRECISION flat plate shaving...

year after year... it's still PREMIER!

Sta-Hi Premier Rotary Shavers manufactured 23 years ago are still "on the job," still delivering quality work with a minimum of maintenance...

The Premier handles with the firm, sure touch of precision, packs the power to handle any flat plate shaving job with authority...stereotypes, electrotypes, zinc, plastics, wood or metal base.

The careful craftsmanship of skilled Premier mechanics builds into these fine machines a rare combination of rugged, heavy duty construction and hair-splitting accuracy.

Hundreds of Premiers are now in operation, in large plants and small, helping make possible more economical letterpress production and a better printed product — from daily newspapers to "slick" brochures...

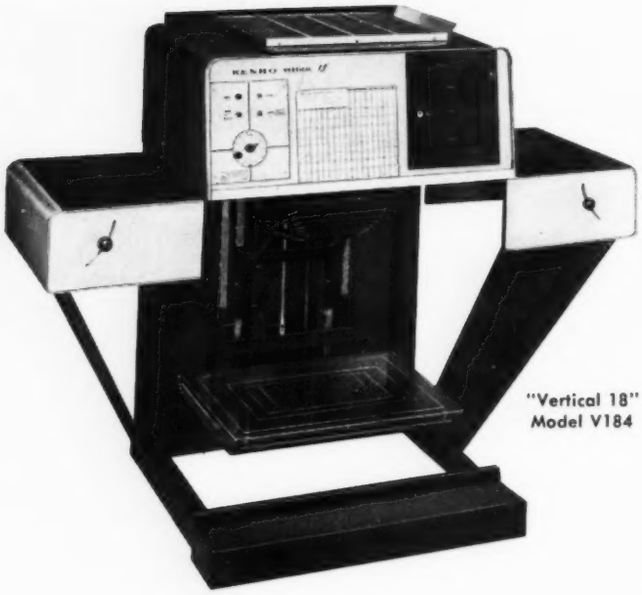
We'll be glad to tell you where you can see a Premier in operation in your neighborhood — and "ask the man who runs one."

STA-HI CORPORATION

235 WEST WASHINGTON BOULEVARD
WHITTIER, CALIFORNIA

For More Information Circle 165 on Reader Service Card

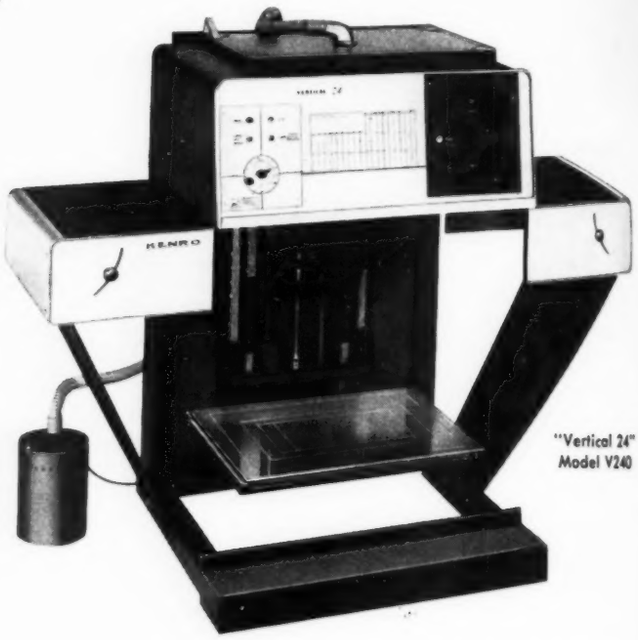
Which Kenro VERTICAL Camera is best for your work?



"Vertical 18"
Model V184

THE "VERTICAL 18" is extremely versatile. It makes line and halftone negatives up to 14" x 18" in size, can be equipped with stayflat or vacuum back. Interchangeable heads also available for making Ektalith, Gevacopy or xerographic exposures. When equipped with Prismatic head you can use your Kenro camera for making right-reading film negatives or direct photocopies of reproduction quality in one step, without an intermediate negative.

Regardless of your press size, if copy calls for shooting 8½" x 11" pages two-up or 11" x 17" bleed, then the Kenro "Vertical 18" is the camera for you.



"Vertical 24"
Model V240

THE "VERTICAL 24" brings you the advantage of big camera capacity in an economical, compact, space and step saving unit. It makes line and halftone negatives and other types of exposures up to 18" x 24". Shoots 8½" x 11" copy four-up, covers a full size newspaper page. Is equipped with vacuum back, and can also be equipped with adapters for making Ektalith, Gevacopy or xerographic exposures.

Prismatic head allows you to make one-shot proofs of paste-ups, enlargements or reductions of type matter or illustrations quickly and economically. If you run a newspaper, need big negatives or have a high volume of work, install a Kenro "Vertical 24".

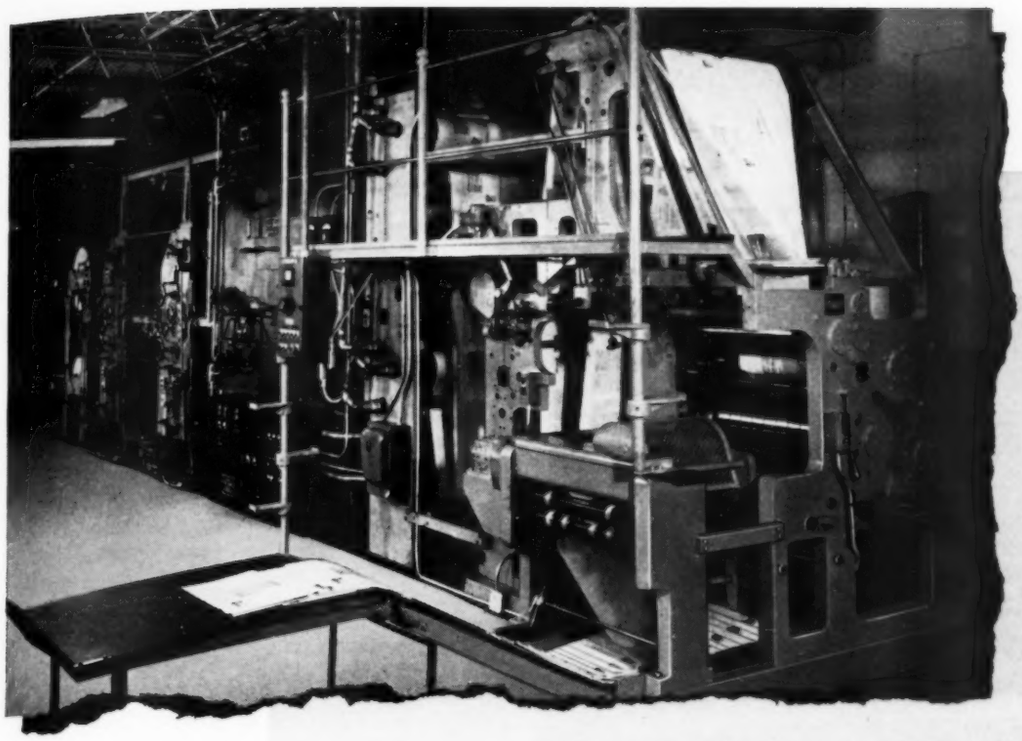
BASIC KENRO ADVANTAGES

- **Precision construction**—ball bearing copy and lensboard slides, alignment checked by collimators.
- **Superior lenses**—standard equipment includes special color-corrected Goerz Dagor lenses, the finest, most linear optics available.
- **Micro indicator size and focus system**—permits accurate sizing and resetting to .002" and ready lens interchangeability.
- **Spring-loaded compensating copyboard**—with cover glass hold-up.
- **Adjustable angle, stationary lighting**—gives even illumination, permits exposures at optimum lens settings, whether shooting same size, enlarging or reducing.
- **Push-button exposure**—with relay equipped automatic reset timer.
- **Modern design, advanced engineering**—from the largest and most experienced manufacturer of vertical process cameras.

Ask your dealer to demonstrate . . . or write for information and prices.

KENRO GRAPHICS, INC. Dept. G, Cedar Knolls, New Jersey

For More Information Circle 97 on Reader Service Card



HANTSCHO web-fed 2-unit perfecting press with double roll stand, dryer, high-speed folder. Arranged with two webs, one color each side — or one web, two colors each side.

interested in HIGHER PROFITS ?

A HANTSCHO WEB-FED OFFSET PRESS WILL EARN THEM FOR YOU . . .

Here is a practical answer to the ever-present problem of producing fine quality printing at greater speeds in black and multi-color . . . a solution proven in the plants of many leading newspapers, magazine publishers and commercial printers.

INSTALL WEB OFFSET PRESSES! Increased production means higher profits and, with HANTSCHO equipment there *is no sacrifice in quality!*

These precision-built lithographic presses are available in any number of units, arranged to print from one to six colors, always in perfect register.

If you print in letter press or sheet-fed offset, you are missing an opportunity to increase *both* production and profits. We invite you to investigate the profit possibilities of a HANTSCHO press, designed to meet your requirements.

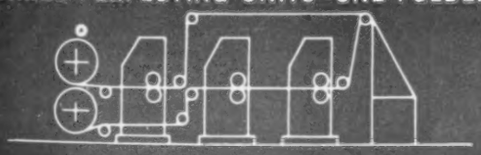
HANTSCHO PRESSES ARE CUSTOM-BUILT IN MODELS FOR EVERY PURPOSE

Write on your letterhead for literature, specifications and prices.

GEORGE Hantscho CO., INC.

602 South 3rd Avenue • Mount Vernon, New York • Teletype: TWX-MT V NY2193
Midwest Representative: 153 W. Huron St., Chicago 10, Ill. • Teletype: TWX CG1486

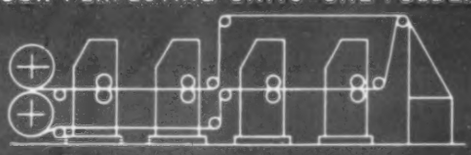
THREE PERFECTING UNITS–ONE FOLDER



Three Perfecting Units, one folder, one web — three colors each side.

Four perfecting units operate efficiently with two webs; deliver many signature combinations.

FOUR PERFECTING UNITS–ONE FOLDER



Four Perfecting Units, one folder, one web — four colors each side.

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only the BEST would do for

the **News-PIEDMONT** Greenville, S. C.

Six, WOOD Metropolitan Color-adaptable Press Units in modern plant of the NEWS-PIEDMONT, Greenville, S. C., "guaranteed to properly print, fold and deliver newspapers at a speed of 52,500 PPH." Provision is included for full color.

They chose WOOD METROPOLITAN *Color-adaptable Press Units*

In making plans for immediate and future expansion, the NEWS-PIEDMONT wanted Press Units that combined utmost color flexibility, high production speed, dependability and economy of operation in printing the daily circulation of over 107,000.

In choosing WOOD units, such features as eye-level Ink Controls, portable Ink Fountains, 3/2 Folders and vibrationless operation at speeds up to 60,000 PPH, or better, provides facilities that meet every production demand of today's high speed presses.

We invite you to send for literature describing WOOD Press Units, Color Units, Fully Automatic Reels, Tensions and Autopasters and Folders.

IF IT'S Wood IT'S GOOD

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Plainfield, N. J. • Executive and Sales Office: 501 Fifth Avenue, New York 17, N. Y.

For More Information Circle 237 on Reader Service Card

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in all major processes of the Graphic Arts industry.

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PRINTING PRODUCTION

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THE COVER illustration possibly bears a distinct resemblance to a pressman attaching a plate to an offset press cylinder. There is little we could take exception to in this observation except to say that the thin flexible plate shown is for letterpress use. The sketch was made from a photograph taken in the Marathon plant of American Can Co., Menasha, Wis. Here the wrap-around printing process is being used on a regular production basis after a considerable period of experimentation. Marathon's experiences are detailed in a story beginning on page 31 in which the author gives an interesting account of how wrap-around printing grew up in his company.

LETTERS

TO THE EDITORS

Selects Research Article

We are happy to confirm that a panel of judges has selected an article from PRINTING PRODUCTION to be included in *Graphic Arts Progress* 1960. The article selected for full reprint is *Graphic Arts Has Found Group Approach Helps Research* by Dr. Marvin C. Rogers (December 1959, page 54).

Both the judges and ourselves admit that it was a difficult task to choose the best 24 articles from the more than 150 excellent choices submitted by the editors.

James S. Lyndes
Fraser Paper, Ltd.
New York, N. Y.

EDITOR'S NOTE: The publication *Graphic Arts Progress* includes a selection of what a judging panel deems are the best articles published in printing trade magazines in the past year. This is the fourth straight year stories appearing in this magazine have been so recognized, an achievement in which we take great pride. Copies of the publication may be obtained from: Fraser Paper, Ltd., 420 Lexington Ave., New York 17, N. Y.

Plant Planning Scrutinized

Very nice to see ourselves in PRINTING PRODUCTION (March 1960, page 41)—quite an Impact! Many thanks for the good coverage, but it was 100 million, not one million, copies of publications that NPC produces yearly.

Leslie C. Shomo
National Publishing Co.
Washington, D. C.

The composing room layout for a commercial shop shown on page 30 of your March issue almost compels one to ask:

Wouldn't it be better to get those magazine racks out of the path between slug casting machines and dump? Wouldn't it be more convenient to put them in a single row against the wall in back of the machines? Wouldn't this allow for additions to their number and save a lot of hunting in circles for an empty space and the particular magazine wanted?

Also, wouldn't the proofreader be happier and more efficient away from the foreman's busy desk and the two saws across the aisle?

Frank DeWitt, Assistant Head
Graphic Arts Research Dept.
Rochester Institute of Technology
Rochester, N. Y.

Commend Story Presentations

A big congratulation for the very fine way in which the story about our newsprint warehouse and tunnel has been handled in the April issue (page 44). We think that you did an outstanding job in this presentation, and all here in St. Paul are well pleased with the article as treated by your publication.

A. E. Rosene
Production Manager
St. Paul *Dispatch* and
Pioneer Press

I want to take this opportunity to express appreciation for the coverage you gave the Mid-Atlantic Newspaper Mechanical Conference in your April issue. If the meeting was as interesting and good as your article suggests, I am sure our people found it a worthwhile experience.

Richard Dew, General Mgr.
Pennsylvania Newspaper
Publishers Assn.
Harrisburg, Pa.

I want to take this opportunity to commend PRINTING PRODUCTION for the excellent presentation in your February issue (page 42) of our ink mist system taken from the paper I presented at the Great Lakes Newspaper Mechanical Conference. Not only was it presented well, but it was also well written.

Horace H. Parker
Press and Stereo Foreman
Richmond (Ind.) *Palladium-Item*

Photo-Chromotype Engraving Co.
Relies on
IMPERIAL VITAPLATE
for all Commercial Work

Mr. Carl G. Ermel, vice president and Mr. Milton Deputy check quality of a Vitaplate engraving.

"Imperial Vitaplate minimizes make-over zinc etchings. It helps us meet competition from other commercial plants and printing processes," says Mr. Carl G. Ermel, Vice President of Photo-Chromotype, Philadelphia.

Economies are not the only reason Photo-Chromotype depends on Vitaplate. Quality features of "pin-point" highlight halftone dots and clean, deep etched line engravings free of shoulders are equally important. Have you tried Vitaplate lately? Check on Imperial's Photoengraving Engineering Service for technical plant layout and process improvements.

IMPERIAL TYPE METAL COMPANY
Chicago 50 • New York 7 • Philadelphia 34

IMPERIAL ZINCS

• VITAPLATE with VITASOLV — *the original one-bite additive*
• DURAPLATE
• REGULAR

Imperial

For More Information Circle 94 on Reader Service Card

NEW NEW ANSCO PLESTAR®

REPROLITH ORTHO TYPE B

The Ultimate in a dimensionally stable graphic arts film

PLESTAR IS AN ENTIRELY NEW CONCEPT IN A LOW ABSORBENCY DIMENSIONALLY STABLE BASE MATERIAL, COATED WITH ANSCO'S TIME-TESTED HIGH DENSITY REPROLITH ORTHO TYPE B EMULSION.

For the first time, a superb new graphic arts film that combines the famous Ansco Reprolith Ortho Type B emulsion with PLESTAR . . . a new solvent cast polycarbonate base that offers these unexcelled characteristics:

- Extreme Dimensional Stability
- Lower moisture absorption
- Improved optical clarity
- Superior scribing and cutting

Plus all the quality benefits of Ansco Reprolith® Ortho Type B! CALL YOUR DEALER TODAY.

Ansco, Binghamton, New York. A Division of General Aniline & Film Corporation.

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NEWS ITEMS

Du Pont Dycril Representatives — Nine men have been assigned to the newly formed sales staff for Dycril photopolymer printing plates by Photo Products Dept., E. I. du Pont de Nemours & Co. Assigned to the Eastern district in Philadelphia are Donaldson B. Hurd, Bernard W. Dunn and Peter D. Verstraete. Sydney D. Baker, New York, and H. Richard Harris, Boston, have also been assigned to this district, which will be under the supervision of sales manager, Hugh B. Gage. Four technical representatives have been assigned to the Central district under the management of W. Bayne Gibson. Keith W. Haines will be stationed in Chicago; Earl S. Short, in Minneapolis-St. Paul; Robert J. Perry, Detroit, and George K. Bukovsky, in Cincinnati.

Tri-Q, Inc., Formed in California—Tri-Q, Inc., manufacturers of router bit sharpeners and vacuum pre-driers, has been formed in El Monte, Calif. Officers of the company are Leland H. Satre, president; Charles L. Burdett, treasurer, and Jasper A. Burdett, secretary. The company's street address is 1911 Penn Mar Ave.

SATRE

RANDALL

Folding Carton Manager Selected—Ralph H. Randall has been appointed products manager, folding cartons, by Harris-Seybold Div., Harris-Intertype Corp. In addition to serving in this new capacity, Randall will continue to be Philadelphia district manager. Named to aid Randall is Raymond H. Green, who will be assistant Philadelphia district manager. Green has been with Harris-Seybold for eight years; Randall, for 16 years.

To Manage Sales in Carolinas — Clare Pearson has been promoted to sales manager for the North and South Carolina area by General Binding Corp. Formerly, Pearson served GBC as a sales representative in the two state area.

Named Controller-Treasurer of Goss— Glenn C. Traum has been named controller-treasurer, Goss Company, Div. of Miehle-Goss-Dexter, Inc. He has been associated with the company since 1947 and has served as controller since 1954.

Named Manager of Paper Mill Sales— James F. Staley has been appointed resident district manager of paper mill sales in the Midwest by Southworth Machine Co. Included in the Midwest area are Illinois, Indiana, Minnesota, upper Michigan, Ohio and Wisconsin.

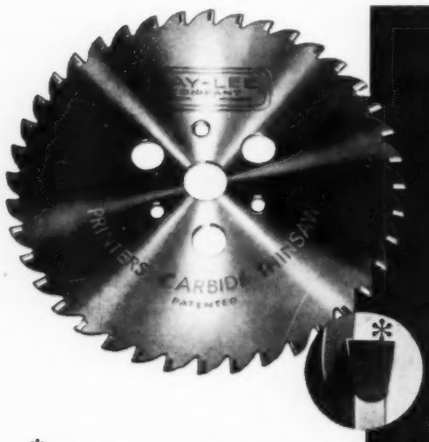
STALEY

FINCHAM

Chemco Baltimore Representative—Chemco Photoproducts Co., Inc., has announced the appointment of Harry Fincham as sales representative in Baltimore.

To Manage Scanner Div. Operations— Robert J. Edmondson has been named coordinator and manager of Scanner Division Operations, Printing Developments, Inc., Sub. of Time, Incorporated. Edmondson will be in charge of the area of Canada, Mexico and 10 Southern states.

(*Continued on Page* 12)



GAY-LEE CARBIDE TIPPED THINSAW CUTS ALL COMPOSING ROOM METALS *Stays sharp longer!*

*Carbide tip has circular seat that provides more brazing surface, positive seating and greatest holding strength. Patented, manufactured under license.

You get everything you want in a Gay-Lee Printer's CARBIDE Thinsaw. Thinsaws made by Gay-Lee are 6 points thin for delicate work yet cut fast and accurately. There is no bothersome sticking pile-up or scream. Every cut is smooth, fast, and accurate.

Gay-Lee puts the finest materials and workmanship into its saws. The CARBIDE tip is set in a patented circular seat and is securely held to the steel body. It offers more brazing area, gives cleaner cuts with excellent backrake cutting and generally eliminates the need for trimmer blades.

Now that you know why a Gay-Lee Printer's CARBIDE Thinsaw is the finest available, order one for your shop on Gay-Lee's 30-Day FREE Trial Offer.

GAY-LEE THINSAW BLADE for Mohr Lino-Saws

Through the research facilities of the Gay-Lee Company, a new saw blade has been developed specially for linotype machines. This new saw reduces noise of operation, cuts cleaner and faster and lasts longer than any other blades of this type heretofore available.

These saws are available from your local printing supply distributor or direct from the manufacturer.

GAY-LEE OFFERS YOU BOTH SAWS ON A 30-DAY FREE TRIAL OFFER!

GAY-LEE COMPANY CLAWSON • MICHIGAN . . . *Standard the World Over*

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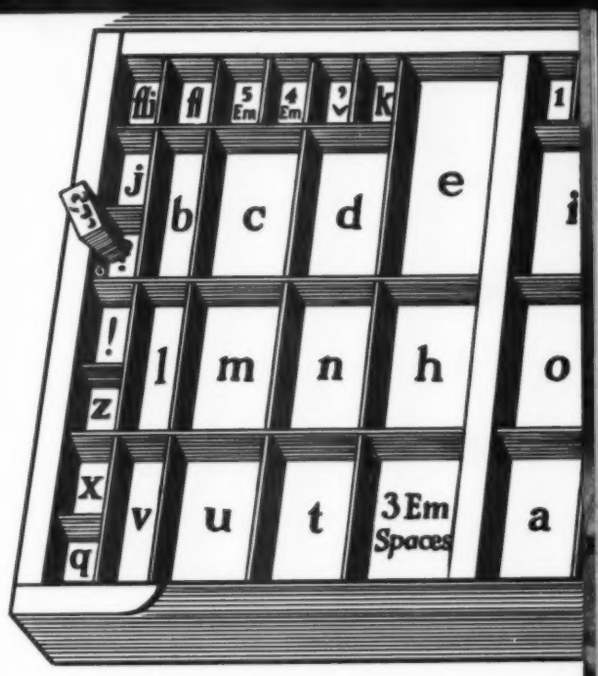


DO YOU KNOW what kind of paper this is? No fair looking at the watermark. Clue #1: It's made with Neutracel® pulp. That's why the uniform level surface takes a crisper, clearer impression—the kind that keeps customers happy.

Clue #2: More secretaries type more letters on this bright, white sheet than on any other watermarked paper. They do their best work on it.

More help? Clue #3: Erasing mistakes is easy on this paper. But no printer makes a mistake when he gives a customer this best-known name in paper. It leads to profitable repeat business for you.

ANSWER: You guessed it! Hammermill Bond! To be exact, Hammermill Bond, Bond finish, Substance 24, white. Also available in 13 colors with envelopes to match. Why not use Hammermill Bond on your next job . . . and get all these advantages. Ask your Hammermill Merchant for the free Hammermill Bond sample book. And while you're at it, get a copy of the new Hammermill Bond Letterhead Portfolio. Hammermill Paper Company, Erie, Pennsylvania.

Be Competitive! 25 x 38" Is Ideal For Profitable Volume Building...Bleeds 8 pp., 9 x 12" Forms Easily

You'll probably find that, like most shops, a vast number of your jobs fall in the 25 x 38" range. That's why more than half of all two color offset presses sold today are this size.

Why is it so popular? On a Miehle 38 for example, you can run full 8½ x 11" or 9 x 12" bleed jobs easily, 8-up. You have the broader capacity to handle *more* of the popular sizes used for brochures, booklets, letterheads, etc. You can go after *more* business... be *more* competitive.

And in the 25 x 38", Miehle gives you the choice of *single color, two color, or four color models.* Their extra production and quality advantages are designed to put you out front for keeps. Non-stop feeding and delivery for high output on long runs...swing gripper sheet transfer for perfect register at any speed...and big form roller ink distribution for smooth, quality results on highlight halftones and heavy coverage forms...these are just a few of the many advantages of the Miehle 38.

If you're running single color 23 x 29" presses now, a 25 x 38" two color is your most logical growth move ...and the most profitable. Make your next step up a Miehle 38 Offset Press.

THE MIEHLE COMPANY
Division of Miehle-Goss-Dexter, Inc.
Chicago 8, Illinois

For More Information Circle 118 on Reader Service Card

News Items

(Continued from Page 8)

He has been business manager of all PDI operations since 1958 and will continue in this capacity.

Atlantic Zinc Vice President—Patrick J. Kearns has been elected vice president, sales, Atlantic Zinc Works and Rolled Plate Metal Co., Divs. of Ball Brothers Co., Inc. Kearns has been associated with the Graphic Arts for 21 years and served Atlantic Zinc as a representative from 1948-1956.

KEARNS

BRISK

Rumford Printing Vice President—Philip W. Brisk has been elected vice president, Rumford Printing Co., Concord, N. H. According to Francis N. Ehrenberg, board chairman, Brisk will serve in sales and administrative capacities and will have the responsibility of establishing the firm's Comics Division. Equipment for the new division is scheduled to be installed in June. Previous to his election, Brisk was president, Steinberg Press, Brooklyn, N. Y., and was subsequently connected with Blanchard Press, New York City.

Plant Manager of Hempstead Press—Fred D. Alter has been appointed plant manager, Hempstead Press, Hempstead, L. I., N. Y. Formerly, Alter has taught Graphic Arts in several public school systems and has been associated with Crowder Offset Printing Co., Norfolk, Va., Columbia Printing Co., Hamden, Conn., and Comet Press, New York.

Ideal Roller Moves Office—Ideal Roller & Mfg. Co. has moved its Cleveland office to 20575 Center Ridge Rd., Cleveland 16. New telephone number is Edison 3-2770.

M-G-D Establishes Affiliate in W. Germany—Miehle - Goss - Dexter, Inc., has established a manufacturing affiliate in W. Germany. Known as Machinefabrik fuer Graphische Industrie und Druck GMBH, it is wholly owned by M-G-D's Swiss subsidiary. President of the Swiss subsidiary is T. Niggli, who is also manager of M-G-D's international operations. The new affiliate is located at Offenbach, near Frankfurt.

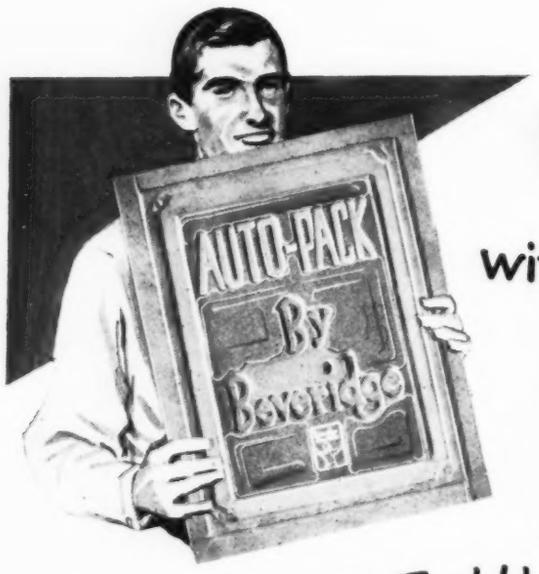
ALTER

HAWK

Hawk Appointed to New GPI Post—Lewis R. Hawk has been appointed to the recently created position of gravure technical director, Eastern Div., General Printing Ink, Div. of Sun Chemical Corp. Presently, Hawk is president of the Philadelphia Printing Ink Makers.

Potdevin Vice President—James S. Hamilton has been named sales vice president of the bag machine division of Potdevin Machine Co. Formerly, Hamilton was assistant to the president of the machine company.

Champion Elects Officers—Dwight J. Thomson has been elected chairman of the board and Karl R. Bendetsen, president, Champion Paper & Fibre Co. They succeed the late Reuben Robertson. In connection with the election, the following were assigned temporarily to management posts: Leo Geiser, acting group

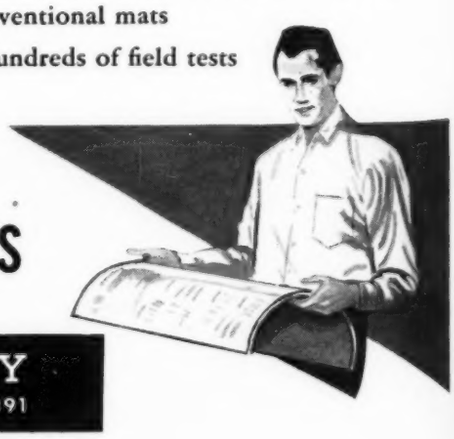


If You Start with....

NEW AUTO-PACK MATS

with these features....

- one piece packless mat
- 50% compressible
- molding pressure same as standard mats
- retains 0.030 to 0.035 space depth from 0.040 form depth
- easier to use than conventional mats
- proved efficiency in hundreds of field tests



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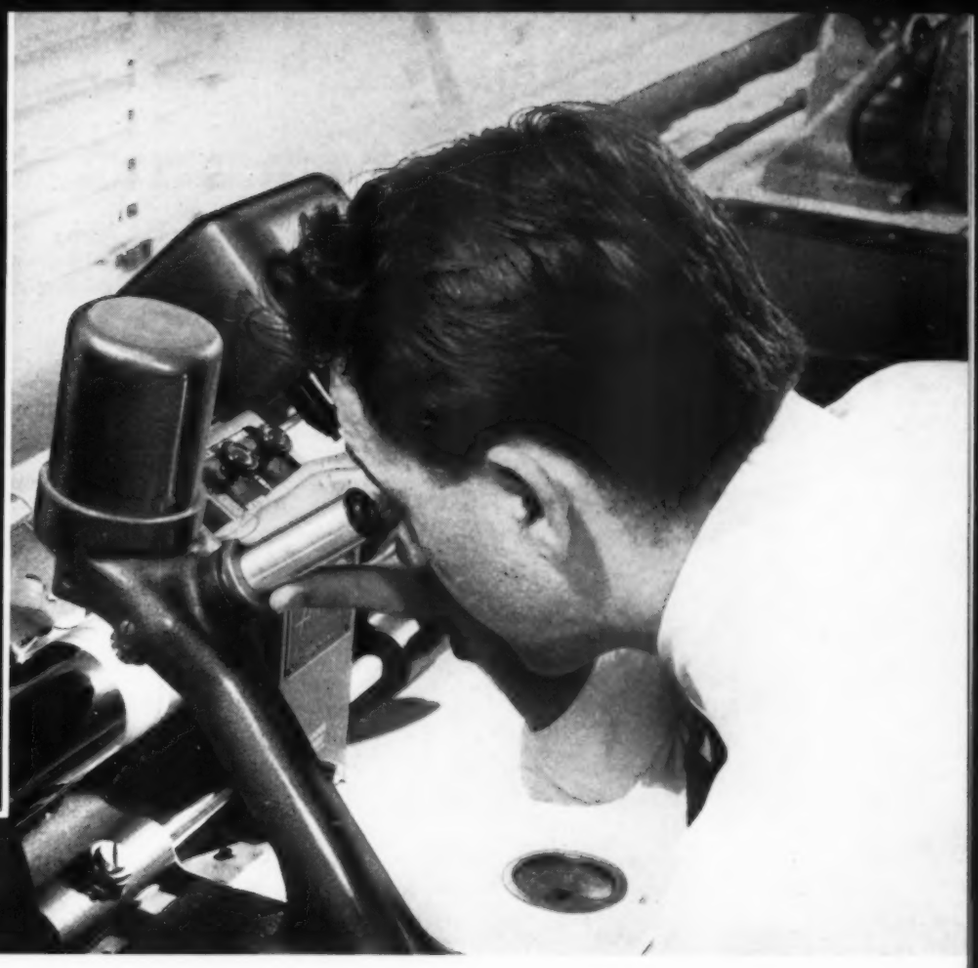
Exclusive Fairchild Stroboscopic Microscope enables operator to make adjustments, during setup process, that result in engravings with clean, sharp halftone dots, as shown here highly magnified.



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Built to take the day-in, day-out punishment of the busiest paper — yet light enough to be easily handled. Precision flat ground 24" x 28½" top is mirror smooth for quick, accurate make-up. Adjustable height; reinforced frame and large 5" casters handle loads to 1200 lbs. Also available in double page and special sizes.

(For complete information on either or both of these quality NOLAN products, attach this portion of ad to your letterhead.)

☐ STEREOSAW ☐ MAKE-UP TRUCK

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executive, operations group; Earl Jones, acting Ohio Division manager; Benjamin V. Wright, acting group executive, converting products group; Bendetsen, in addition to serving as president, will be executive vice president, printing products group.

Huber Acquires Ink Company Stock — The outstanding shares of stock of the Courtenay Ink Co., Inc., have been purchased by J. M. Huber Corp. Effected Apr. 1, the transaction was announced by J. S. Hart, vice president, Huber Ink Div., and E. H. Courtenay, Jr., president, Courtenay. The newly acquired company is located in Louisville and has specialized in the production and sales of shipping container inks since 1948.

Joins Pitman Technical Staff — Daniel Polito has joined the staff of Harold M. Pitman Co. as a technical representative in the New York area.

Muirson Label Official Dies—George E. Fichtner, Jr., 45, vice president and Eastern division manager of Muirson Label Co., Inc., died suddenly Mar. 23, while on a business trip in Puerto Rico. He had been associated with Muirson, which is located in Meriden, Conn., for 22 years.

Topeka Company Elects Officers—William P. Furlong has been elected president, General Printing and Paper, Inc., Topeka, Kans. He had been acting general manager of the firm since 1958. Re-elected as secretary-treasurer of the company was Mack D. Greene.

Toole Printing Plant Relocates—Frank C. Toole & Sons, Inc., has moved to a new location at 1100 Fulton St., Farmingdale, N. Y. The new plant has a capacity more than twice the size of the former facilities. Plant manager will be Frank Herbst, former production vice president, Corydon M. Johnson Co., Inc. Toole & Sons was established in 1958 by Frank Toole.

Star Parts Kansas City Manager—Ronald V. McKee has been named manager of the Kansas City branch of Star Parts, Inc. He

McKEE

LONGACRE

succeeds the late M. Van McKee, former vice president of the company. Assuming the new branch manager's former territory of Texas, Mississippi and Louisiana is James L. Longacre, sales representative.

ATF Appointments in Cleveland—Lawrence B. Keaty has been appointed Type-

KEATY

ROSS

setter sales technician for the Cleveland area by American Type Founders Co., Inc. Succeeding Keaty as service representative in Cleveland is Edward Ross.

Brogle Joins Milwaukee Roller Co.—Peter A. Brogle has been named general manager, production and sales, Milwaukee Printers' Roller Co. He has previously been associated with Moebius Printing Co., Milwaukee.

Wiretyer Reorganizes Sales Department—Harold L. Colombo has been appointed general sales manager of the newly organized sales department of Wiretyer Corporation. The sales staff will be composed of direct area sales representatives. Colombo was previously head of the firm's Industrial Division. He succeeds L. F. Fallon who no longer is associated with Wiretyer.

Goss Appoints Vice President—Paul A. Florian has been appointed vice president, administration, of Goss Company, Div. of Miehle-Goss-Dexter, Inc. Florian has been associated with Goss for 12 years serving in various sales and administrative capacities.

Stern & Co. Appoints Two—John T. Werner has been appointed production manager and Glenn Davidson, chief engineer, Edward Stern & Co., Philadelphia. Prior to his appointment, Werner handled sales in the Philadelphia-New York area for Stern. Davidson was formerly director of Graphic Arts research for LogEtronics, Inc., and has worked in methods and research for R. R. Donnelly & Sons Co., Chicago.

Frye Opens New York Plant—Frye Manufacturing Co., producer of carbon papers, has announced plans to establish an Eastern branch factory near Newburgh, N. Y. The company plans to construct a 40,000 sq. ft. plant at an approximate cost of $300 thousand.

Subsidiary to Distribute Rollers—Graphic Supply Co. has announced the formation of a subsidiary, Grafco Roller Co., Inc., for distribution of Graphic Arts rollers manufactured by United States Rubber Co. The new subsidiary will be under the direction of C. T. (Tim) Zeese, vice

president. The parent company will continue to supply blankets and other Graphic Arts materials.

Heads Linotype's Mexican Company—Edwin H. Watson has been named administrator of Linotipo Mexicana, S. A. de C. V., Mergenthaler Linotype's associate company in Mexico. The firm, which is located at Calle Mina No. 52, Mexico 1, D. F., handles sales and service of Linotypes and Davidson offset presses. Others associated with the Mexican company are Martin Erle, office manager; Jose Martinez Ragel, sales manager, and Jose Rivas, shop foreman.

To Make Rollers in N. Carolina—Rubber and synthetic covered rollers for use in the Graphic Arts will soon be produced in the Waynesville, N. C., plant of Dayton Industrial Products Co., Div. of Dayton Rubber Co.

Opens Engraving Firm in Illinois—J. H. (Jerry) Anderson is to serve as president and general manager of the recently established engraving firm, Anderson Images, Inc., Rockford, Ill. Formerly, Anderson had been associated with Kable Printing Co., Mt. Morris, Ill. He is president of Illinois Photoengravers, general chairman of the Sixth District Craftsmen's conference and past president of the Rock River Valley Craftsmen's Club.

ANDERSON

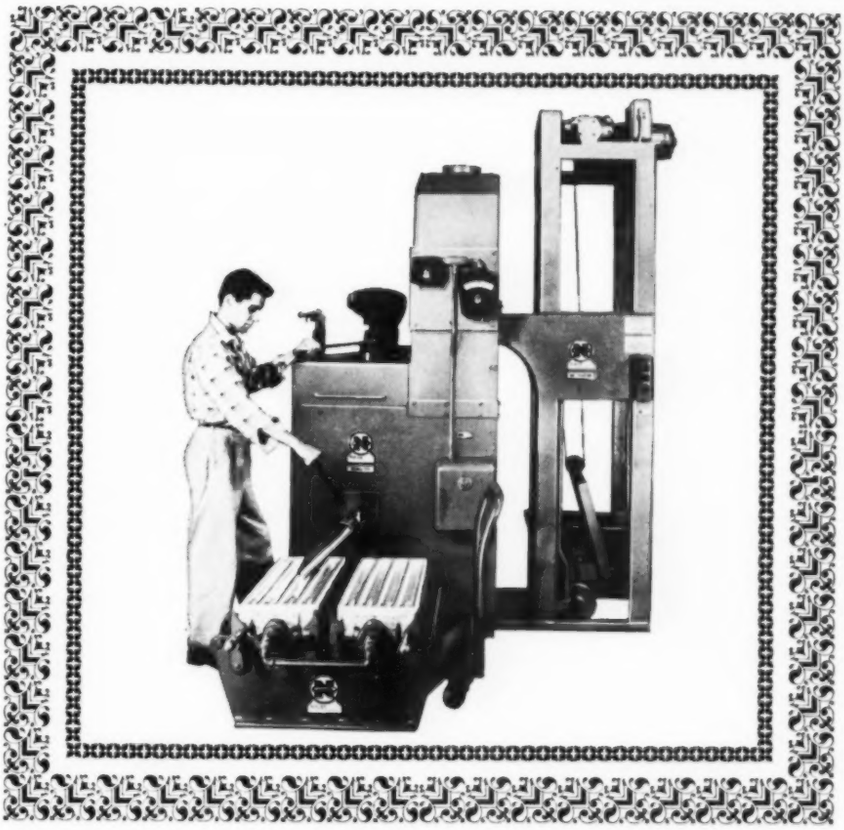
DRESSEL

Dressel Represents Paper Company—Arthur Dressel Assocs., New York, has been named to represent Donnacona Paper Co., Ltd., Sub. of Howard Smith Paper Mills Ltd. Arthur Dressel who organized the New York firm formerly served as president of R. Hoe and Co., Inc.

Southworth Expands Equipment Line—Southworth Machine Co. has been designated as sales agent for Simplex and Duplex cutters, delivery systems, counters and markers, inspection units, backstands and related equipment for the Hamblett Machine Co. and Maxson Automatic Machinery Co. According to a company official, these equipment additions allow Southworth to offer a complete and integrated finishing room line.

Gaetjens Buys New Jersey Company—William Recht, chairman and president of Gaetjens, Berger & Wirth, Inc., has announced the acquisition of Camden Ink & Color Co., Camden, N. J. The newly acquired company will operate under the

PICTURE OF PRODUCTION EFFICIENCY



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name of GBW Color Co., Inc., and will serve the Delaware Valley area. Fred W. Hess, Jr., has been appointed supervisor.

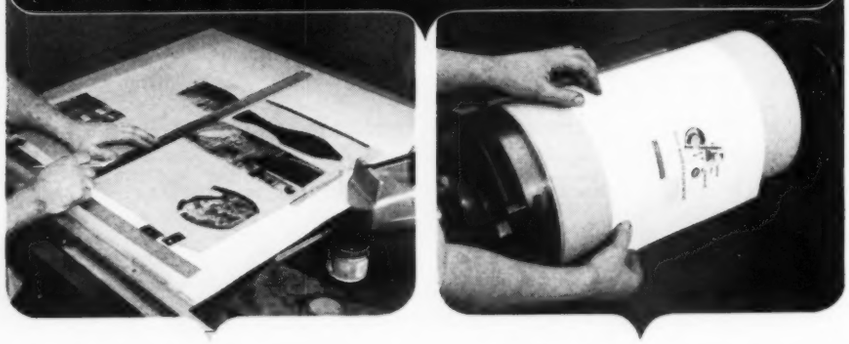
Danish Firm to Make Dayco Products—Roulunds Fabriker, Ltd., of Odense, Denmark, has been licensed to manufacture Dayco printing rollers and other Dayco products. This announcement was made by Richard Rosenberg, vice president, Dayton Rubber International, Div. of Dayco.

Two Join Pitman Staffs—William Boyden has been appointed to the Boston staff and Anthony Cicchetti to the New York staff of the Harold M. Pitman Co., according to Kenneth W. Martin, company president.

Megill To Service M-G-D Line in Denver—W. S. Megill Co. has been appointed regional parts and service representative for Dexter and Lawson Companies, Divs. of Miehle-Goss-Dexter, Inc. In addition, Megill will continue to service the products of Miehle Company, another M-G-D division. Megill is located at 1918 Lawrence St., Denver, Col.

Georgia Representative for Pierce—Clarence L. Hewin has been named Southeastern representative, Pierce Specialized Equipment Co. From headquarters at 3343 Cedar Island Dr., S.W., Atlanta, Hewin will service Georgia, Alabama, Mississippi, Florida, the Carolinas and Tennessee.

Two important factors for producing top quality printing plates for Offset... Letterpress... Gravure



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MEETINGS for the PRINTING INDUSTRY

American Photoengravers Assn.—1960 Conv., Hotel Statler, Buffalo, N. Y., Oct. 9-12. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Chicago 4.

ANPA Mechanical Conf.—1960 Conf., Hotel Americana, Miami, June 19-22. Mgr. Richard L. Lewis, ANPA Mechanical Dept., 750 Third Ave., New York 17.

Book Manufacturers' Institute — 1960 Conf., Boca Raton Hotel, Boca Raton, Fla., Oct. 19-22. Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36.

Fifth District Craftsmen's Conf.—Commodore Perry Hotel, Toledo, O., May 20-21. Secy.-Treas. George W. Thompson, Toledo Colortype Co., 1711 Jefferson Ave., Toledo, O.

Flexographic Technical Assn.—1961 Meeting, Hotel Roosevelt, New York, Feb. 9-10. Exec. Secy. Julian Ross, 220 W. 42nd St., New York 36.

Graphic Arts Assn. Executives—1960 Fall Meeting, Washington, D. C., Oct. 21-22. Secy.-Treas. Thomas J. Curran, Exec. Secy. Label Mfrs. Natl. Assn., Inc., 1025 Connecticuit Ave., N.W., Washington 6, D. C.

Gravure Technical Assn.—1961 Conv., Hotel Drake, Chicago, Mar. 8-10. Exec. Secy. Edward S. St. John, Room 4800, 30 Rockefeller Plaza, New York 20.

Great Lakes Mechanical Conf.—1961 Conf., Hotel Gibson, Cincinnati, Jan. 22-24. Secy. John E. Innis, R. R. No. 1, Box 546, Indianapolis 27, Ind.

Illinois Newspaper Mechanical Conf.—1960 Conf., St. Nicholas Hotel, Springfield, Ill., Oct. 29-30. Secy.-Treas. Arthur Kramer, Joliet (Ill.) *Herald-News.*

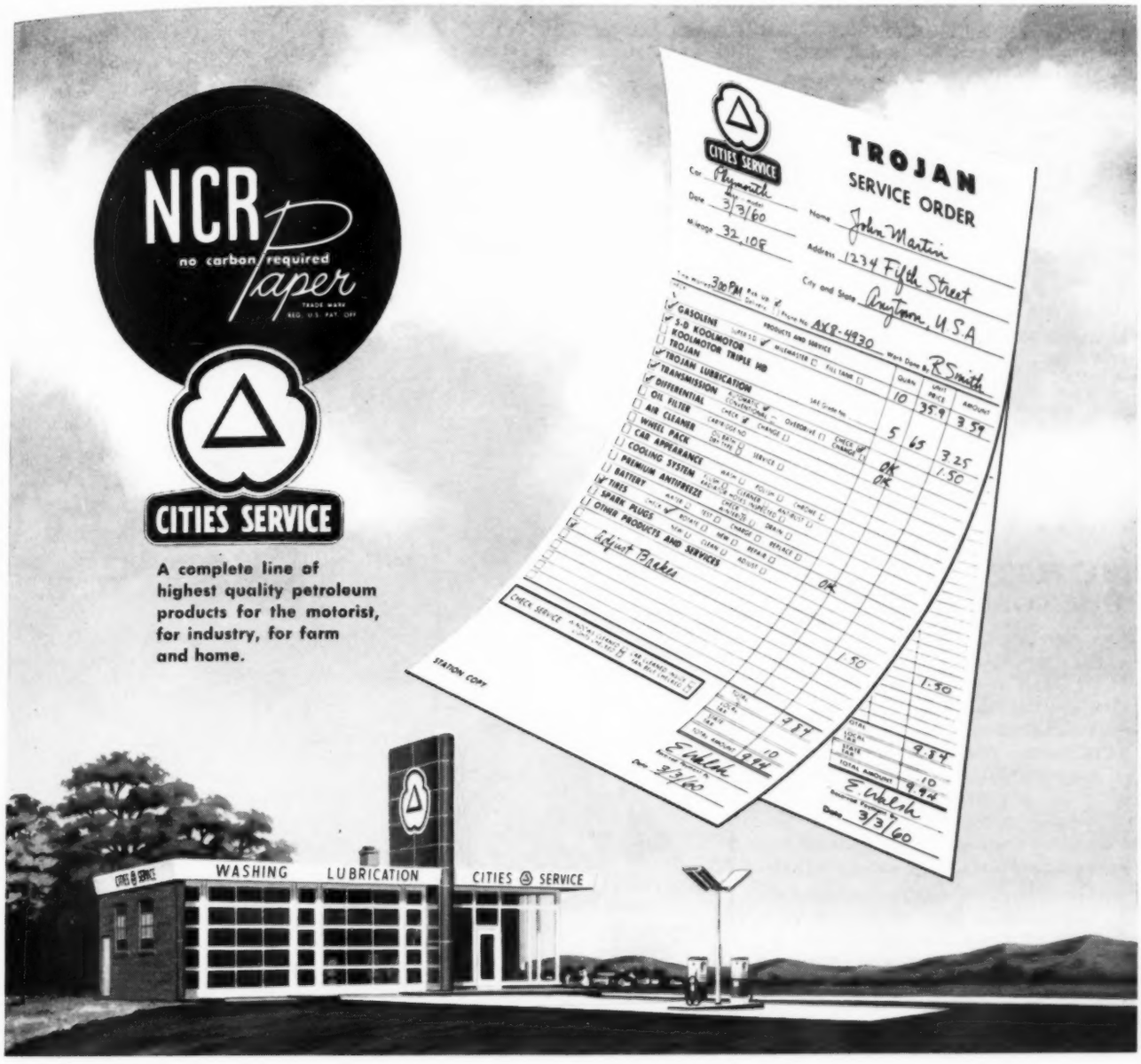
Intl. Assn. of Electrotypers & Stereotypers, Inc.—1960 Conv., Continental-Hilton Hotel, Mexico City, Mexico, Oct. 23-26. Exec. Secy. Floyd C. Larson, 758 Leader Bldg., Cleveland 14.

Intl. Assn. of Printing House Craftsmen—1960 Conv., Hotel Biltmore, Atlanta, Aug. 7-10. Exec. Secy. Pearl E. Oldt, 411 Oak St., Cincinnati 19.

Intl. Graphic Arts Education Assn. — 1960 Conf., University of Houston, Houston, Aug. 18-23. Exec. Secy. Samuel M. Burt, 5728 Connecticut Ave., N.W., Washington 15, D. C.

Intl. Printers Supply Salesmen's Guild—1960 Meeting, Biltmore Hotel, Atlanta, Aug., 5-6. Secy. Harry Deck, 75 E. Wacker Dr., Chicago.

Intl. Typographic Composition Assn.—1960 Conv., Hotel Statler Hilton, Dallas, Oct. 19-22. Exec. Secy. McKinley M. Luther, Washington Bldg., 15th St. and New York Ave., N.W., Washington 5, D. C.



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Iowa Newspaper Mechanical Conf.—Secy.-Treas. Paul F. Kamler, Mechanical Supt., Clinton, (Ia.) *Herald.*

Kansas-Missouri Newspaper Mechanical Conf.—Kansas Gen. Mgr., Larry Miller, Kansas Press Assn., 701 Jackson St., Topeka, Kans. Missouri Secy-Treas. William A. Bray, Missouri Press Assn., 115 Walter Williams Hall, Columbia, Mo.

Lithographers and Printers National Assn.—Dir. Oscar Whitehouse, 1025 Connecticut Ave. N.W., Washington 6, D. C.

Mid-Atlantic Newspaper Mechanical Conf.,—1961 Conf., Pittsburgh, (dates in March and Hotel to be announced). Gen. Mgr. G. Richard Dew, 2717 N. Front St., Harrisburg, Pa.

National Assn. of Litho Clubs, Inc.—1960 Conv., Hotel Statler Hilton, Boston, May 19-21. Exec. Secy. Raymond E. Geegh, 1915-33rd St. S. E., Washington 20, D. C.

National Assn. of Photo-Lithographers—1960 Conv., Conrad Hilton Hotel, Chicago, Oct. 5-8. Exec. Dir. Walter E. Soderstrom, 317 W. 45th St., New York 36, New York.

National Paper Trade Assn.—Exec. Secy. O. Glenn Leach, 220 E. 42nd St., New York 17.

National Printing Equipment Assn., Inc.—1960 Meeting, Sheridan-Park Hotel, Washington, D. C., Oct. 25-26. Exec. Secy. Harry L. Gage, 140 Nassau St., New York 38.

National Safety Council Printing and Publishing Section—1960 Meeting, Conrad Hilton Hotel, Chicago, Nov. 18. Staff Rep. Harry C. Johnson, National Safety Council, 425 N. Michigan Ave., Chicago 11.

New England Daily Newspaper Composing Room Executives Assn.—Exec. Secy. Lewis R. Greene, Westerly (R.I.) *Sun.*

New England Newspaper Mechanical Conf.—1960 Conf., Hotel Statler-Hilton, Boston, Oct. 15-16. Secy.-Treas. Walter C. Crighton, New London (Conn.) *Day.*

New York State Capital District Mechanical Conf.—1960 Conf., Hotel Sheraton Ten-Eyck, Albany, N. Y., May 14-15. Conf. Dir. Floyd Laurenty, Albany (N. Y.) *Times-Union.*

Newspaper ROP Color Conf.—Secy. Arthur Brashears, American Assn. of Newspaper Representatives, 141 E. 44th St., New York.

Northwest Mechanical Conf.—Secy.-Treas. Ralph N. Carson, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis.

Pacific Newspaper Mechanical Conf.—1960 Conf., Multnomah Hotel, Portland, Ore., Sept. 23-25. Secy. Donald Newhouse, Portland (Ore.) *Oregonian.*

Packaging Institute Assn.—1960 Meeting, Hotel Statler, New York, Oct. 31-Nov. 2. Exec. Dir. Chas. A. Feld, 342 Madison Ave., New York 17.

Printing Industry of America—1960 Conv., Hotel Sheraton Park, Washington, D. C., Oct. 24-27. Gen. Mgr. Bernard Taymans, 5728 Connecticut Ave. N. W., Washington 15, D. C.

Research and Engineering Council—1960 Conf., Hotel Dayton-Biltmore, Dayton, O., May 23-25. Managing Dir. Robert E. Rossell, 5728 Connecticut Ave. N.W., Washington 15, D.C.

Screen Process Printing Assn., Intl.—1960 Conv., Hotel Sherman, Chicago, Nov. 11-13. Exec. Secy. Robert H. Blundred, 549 W. Randolph St., Chicago 6.

SNPA (Eastern Div.) Mechanical Conf.—1960 Conf., Hotel Dinkler-Tutwiler, Birmingham, Ala., Aug. 14-16. Secy. Walter C. Johnson, Jr., P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf.—1961 Conf., Hotel Adolphus, Dallas, Mar. 5-7. Secy. Claude V. Capers, P. O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assn.—1960 Conv., Hotel Eola, Natchez, Miss., Apr. 21-23. Secy. Charles E. Kennedy, 1514 South St., Nashville 2, Tenn.

Technical Assn. of the Graphic Arts—1960 Conf., Hotel Park-Sheraton, Washington, D. C., June 20-22. Secy.-Treas. Cyril A. Horton, Research Laboratories, Eastman Kodak Co., Rochester 4, N. Y.

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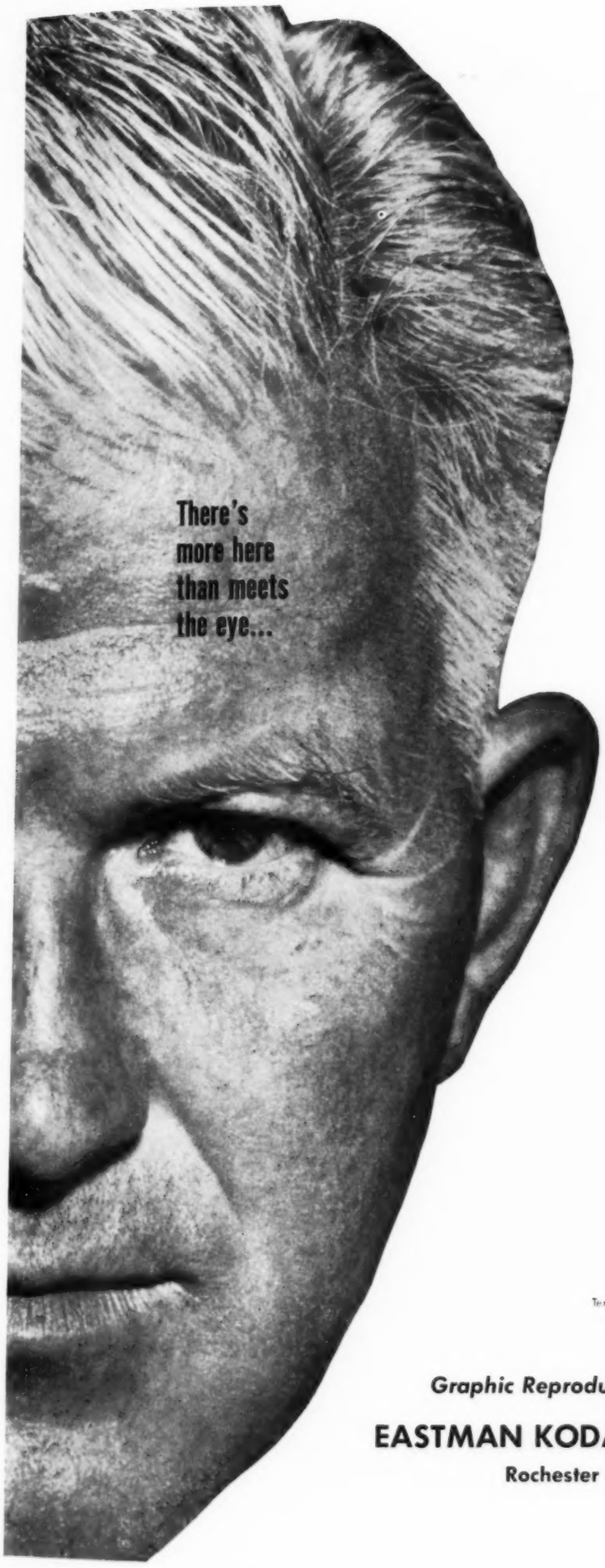

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EASTMAN KODAK COMPANY

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Kodak

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FOR MORE EFFICIENT

THE NEW ACCU-SPEED GATHERER

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The machine can be run at extremely high mechanical speeds with practical operating speeds up to 125 BPM. By adding a 2-up device, running speeds up to 180 BPM are practical.

Built in four pocket units, the machine disengages to idle any four box sections.

Improved, dependable mechanical micrometers make for quick and positive settings.

Gripper arms are light in weight, short in length and stroke. ACCU-SPEED is a compact, sturdy Gatherer free from vibration, and easy to adjust. It takes a full range of sizes and types of signatures for both magazine and edition work.

The new ACCU-SPEED GATHERER can be run as a separate Gatherer, connected to a Side Stitcher and Coverer, or connected to a SHERIDAN or Martini Binder, as shown on the opposite page.

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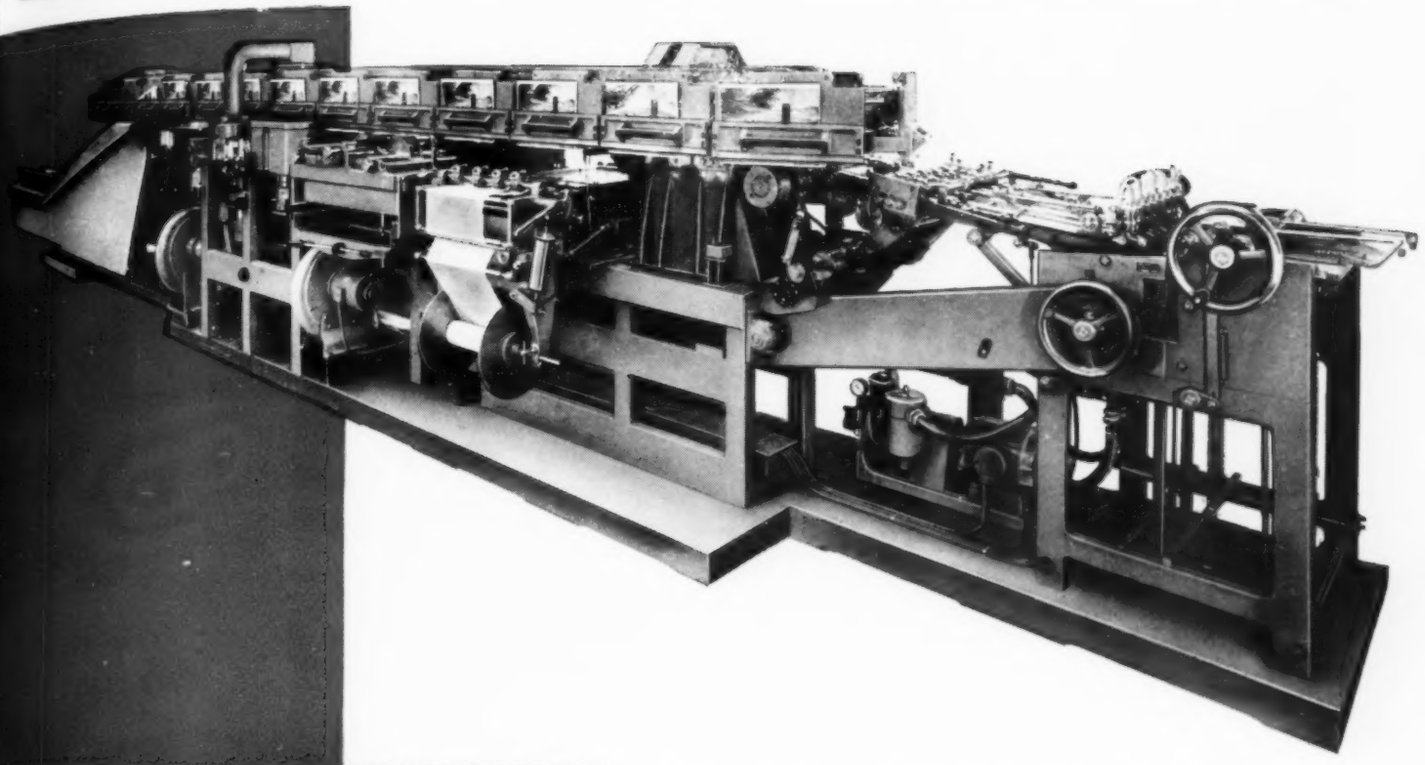
BINDERY OPERATION



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Designed for medium-sized runs, the MARTINI ADHESIVE BINDER offers the economy and advantage of perfect binding at a price you can afford. Built in Switzerland to the highest standards, the MARTINI BINDER is firmly constructed, with all fast running parts fitted with ball or roller bearings, centralized lubrication fittings, and easy-to-reach adjustments. It is capable of running at speeds of 4,000 to 5,500 books per hour.

The Binder is equipped with a Stepless Feed Regulator and has controls and safety switches to stop the machine in the event of misfeed.

CHANGEOVER OF JOBS CAN BE MADE IN 15 TO 45 MINUTES.

Roughing of books is done by special Milling Technique, permitting forcing of the adhesive into the fibres and between the sheets. It provides for paper waste removal; it has an Automatic Feeder for forwarding the cover; and it can put two to four creases in the cover, with provision for side application of an adhesive for the four-creased cover.

The MARTINI ADHESIVE BINDER can be combined with a SHERIDAN GATHERER. It is in popular use throughout England and the Continent.

Sole distributors in the United States:

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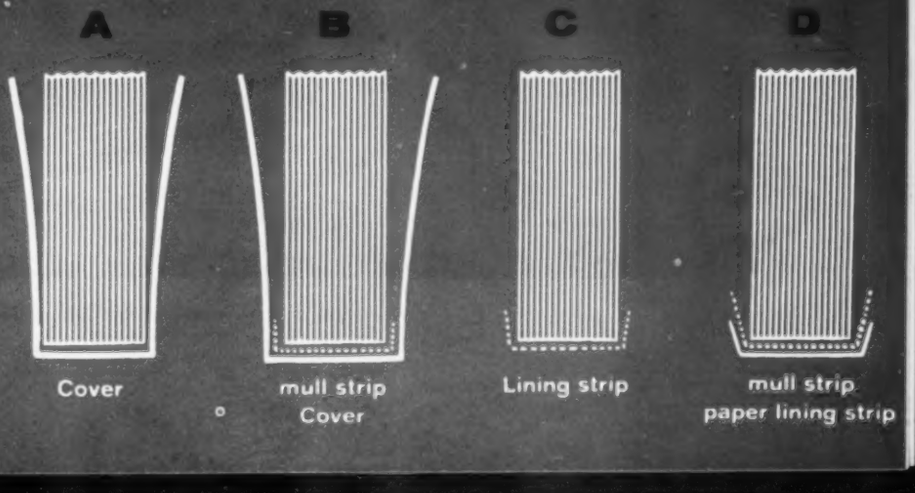
Available in 3 Models:

With Automatic Cover Feeder and Covering Station. (For products as illustrated "A")

Same machine with an extra station for applying crash between the book back and cover. (For products as illustrated "A" + "B" + "C")

Includes the addition of a Back Lining Attachment. This machine, in addition to normal work, will produce books to be rounded and cased-in. (For products as illustrated "A" + "B" + "C" + "D")

Min. size book: 6" x 4" x ⅛"
Max. size book: 16" x 10" x 1¾"
Floor space: 36' x 8'



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features...

- Accurate, Rigid Impression—for highest quality black and white or color proofs, with hairline register.
- Available either hand operated or power driven.
- Wedge-Type Adjustable Bed—as accurate and just as rigid as a fixed bed.
- Power Operated Grippers—for automatically opening and closing sheet grippers.
- Automatic Washup.
- Automatic Register Vacuum Plate Base—for proving original and duplicate plates .015" to .240" in thickness without the use of plate hooks.
- Automatic Sheet Delivery—returns printed sheets to feed board at speeds up to 800 per hour.
- Automatic Frisket—to eliminate printing the dead metal on unmounted original plates.
- Quick Washup Ink Fountain.
- Plastic Covered Inking System—with 20-second form roller change, and simple adjusting knobs for setting form roller height. No tools required.

VANDERCOOK & SONS, INC.

General Offices, Research Laboratory, Demonstration Room & Factory
3601 W. Touhy Ave., Chicago 45, Ill. Phone: ROgers Park 1-2100

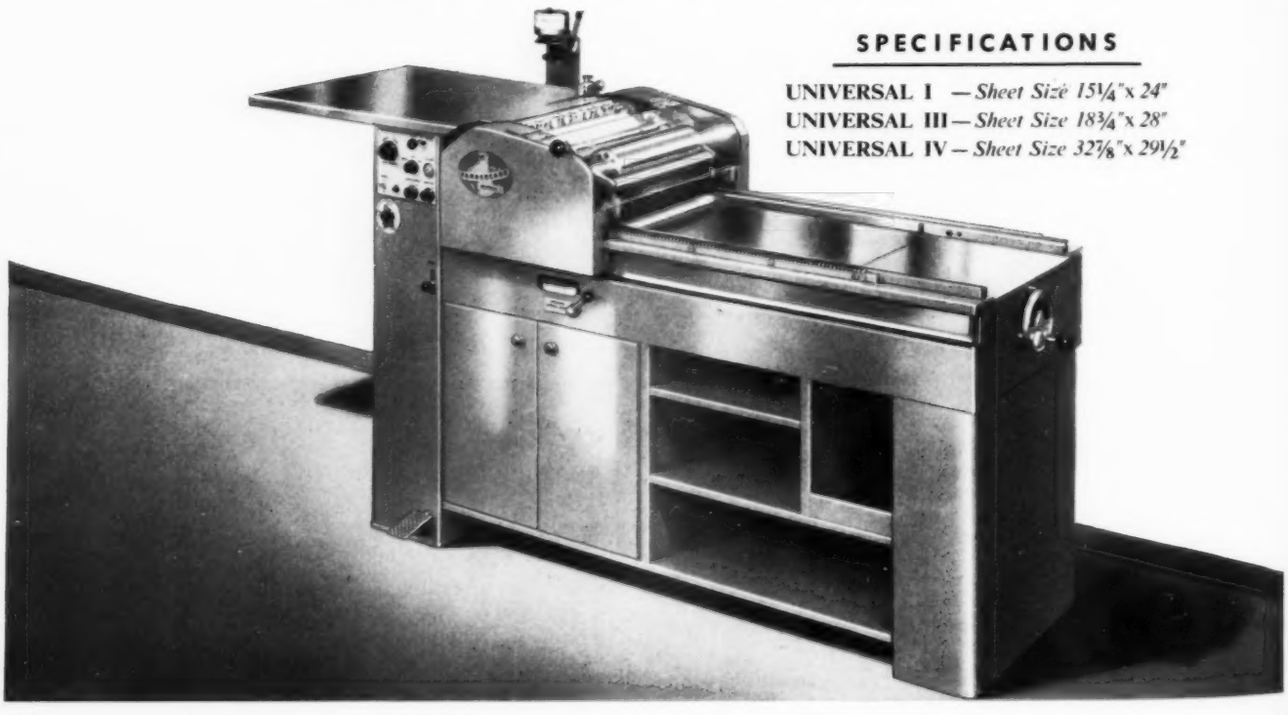
Eastern Sales and Service
205 W. 34th St., New York 1, N.Y.
Phone: BRyant 9-6270

In Canada
Sears Limited

Western Sales and Service
3156 Wilshire Blvd., Los Angeles 5, Calif.
Phone: DUnkirk 8-9931

SPECIFICATIONS

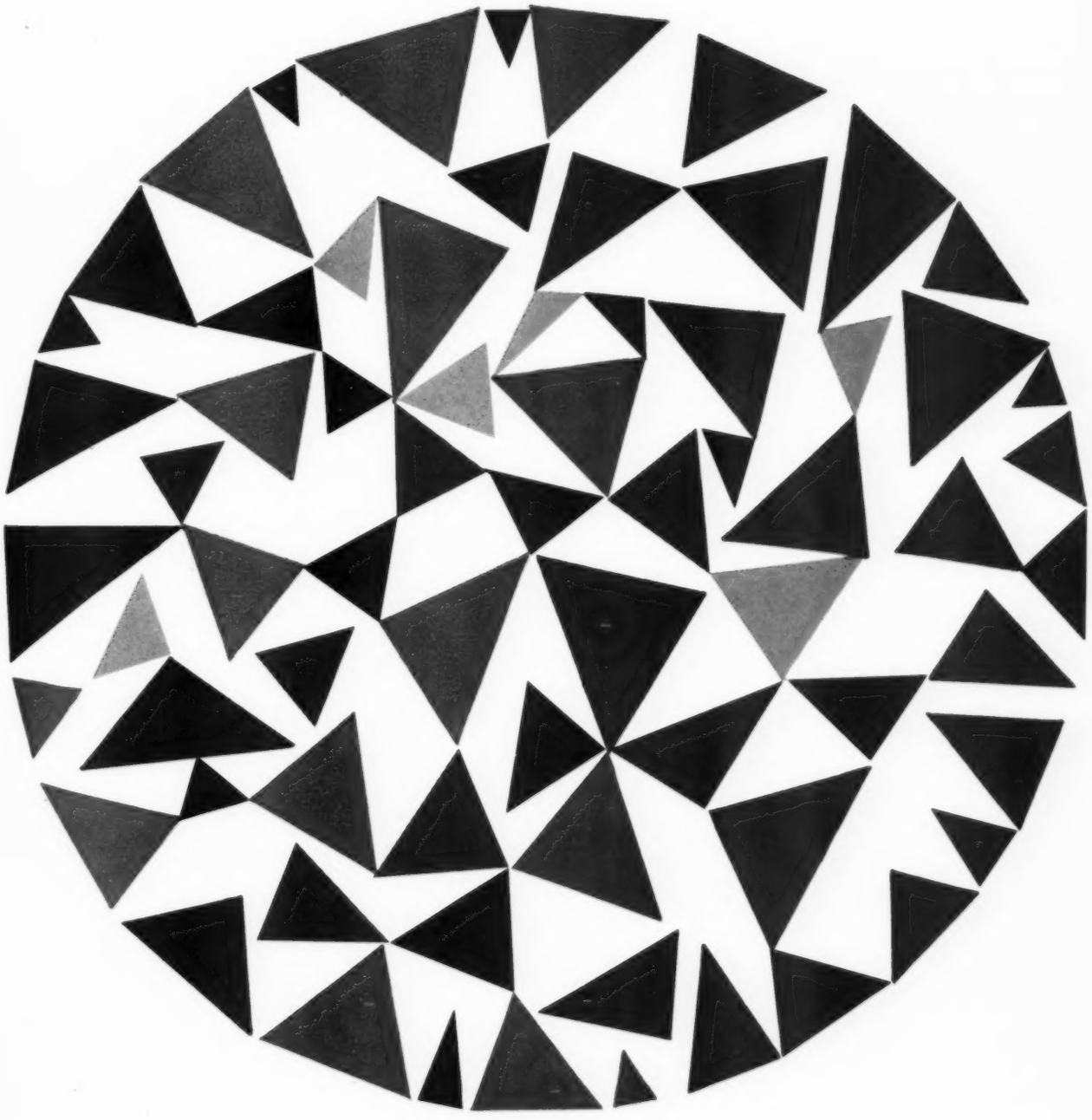
UNIVERSAL I — *Sheet Size 15¼"x 24"*
UNIVERSAL III — *Sheet Size 18¾"x 28"*
UNIVERSAL IV — *Sheet Size 32⅞"x 29½"*



For More Information Circle 182 on Reader Service Card

For More Information Circle 48 on Reader Service Card→

CREATIVE PRINTING...



with **DAYCO** color separators and fountain dividers

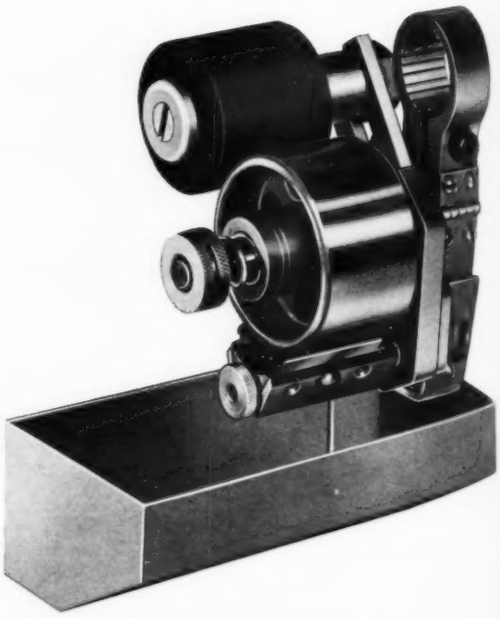
Imagination and planning lets you print and sell...

7 COLORS ONCE THRU

with **DAYCO** mechanical separators and fountain dividers

COLORS GALORE
FOR TWO COLOR BUDGETS

Now, you can offer your customers and prospects striking multi-color printing within budgets that formerly limited them to only two colors. This unique process gives you a competitive advantage that is hard to beat and easy to sell! The additional service you are able to offer costs very little but pays off in big dividends of new business and customer satisfaction. It's easily proven too. Just ask a few of your good customers if their bulletins, brochures, product flyers, etc., would gain added impact through the use of several colors instead of two . . . at an all-time minimum cost. Their reaction, you can be sure, will be enthusiastic and positive. When you equip your presses—letterpress or offset—with Dayco Separators and Fountain Dividers your salesmen have a new selling tool that gets immediate results.



THE ONLY MECHANICAL
SEPARATOR IN THE WORLD

You never have to cut a roller when you use the Dayco Color Separator for any kind of split color work! The same rollers can be used for both multi-color and one color runs.

In addition to impressive savings on rollers and make-ready time, you can frequently eliminate extra press runs with the Dayco Color Separator, the world's only mechanical separator. Printers of magazines, labels, posters, boxes, and, in fact, about everything you can name, are finding new profit possibilities every day in low-cost multi-color printing.

Imagine, without ever cutting a roller you can gang-run several jobs in almost any color combination . . . a real saving in plates and press time.

Dayco attachments are available for all popular types of presses using all kinds of inks. You get sharp solid color edges, and adjustments for different jobs take only a few minutes.

Dayco Color Separators on an offset press.

Dayco Fountain Dividers installed on a flatbed press.

CUT COSTS... *NOT* ROLLERS

Split fountain printing is nothing new, but until now its many advantages were limited by the necessity of ruining a set of rollers for each job. Dayco's Mechanical color separator has changed all that.

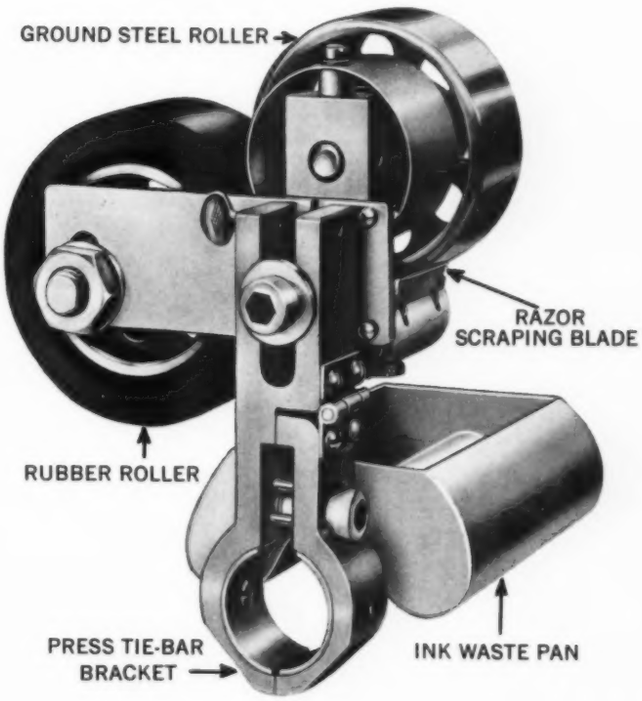
A TWO-COLOR PRESS!

HERE'S HOW IT WORKS

The Dayco Color Separator clamps securely to the press tie-bar by means of a locking bolt. Either the Separator's rubber roller or ground steel roller (depending upon application) rides firmly against an ink carrying rider roller. The Separator rollers pick up the adjacent inks from the rider roller at the split and deposit them in an ink waste pan attached to the unit. This produces a clean split between colors.

Split widths from ½" to 1¾" are possible, depending upon the set-up and make of press. The 1½" Separator roller allows the greatest side oscillation and produces splits 1¾" wide or wider. Other rollers are available down to ½".

Frequently it is desirable to have two separators removing ink from the same split (double unit system). This allows narrow splits without having to greatly reduce the side oscillation of the rollers.



DAYCO ROTARY SEPARATOR—For use on Rotary type letterpress and offset presses. One or more Dayco Color Separators can be located anywhere along the width of a press providing a variety of color combinations with absolute color separation.

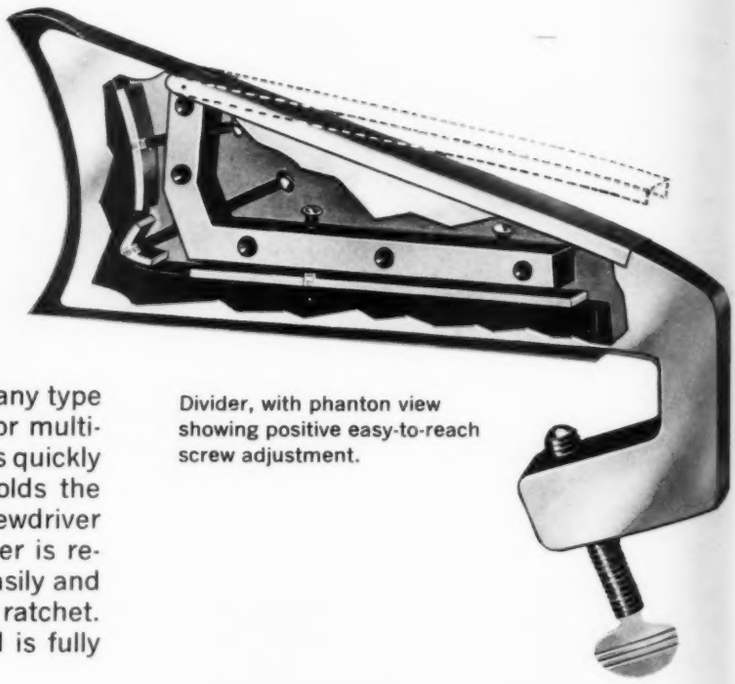
Dayco Rotary Separators on a rotary letterpress.

For insured results, team up your Dayco separators with Dayco fountain dividers

Dayco Department
Dayton Industrial Products Co.
Division of **Dayco Corporation**
(formerly The Dayton Rubber Company)
2001 Janice Avenue *Melrose Park, Illinois*

DAYCO FOUNTAIN DIVIDERS

the only really adjustable dividers made



Divider, with phanton view showing positive easy-to-reach screw adjustment.

The Dayco Adjustable Fountain Divider will fit any type of fountain and has been designed especially for multi-color printing. It requires no paper packing, and is quickly installed. A simple thumb screw adjustment holds the divider firmly to the fountain. Out-of-the-way screwdriver adjustment insures a leak-proof fit. The felt liner is replaceable and inexpensive. The divider cleans easily and gives full fountain control without strain on the ratchet. It is well suited for all other fountain uses, and is fully guaranteed.

A WORLD OF COLOR FOR MORE SALES, MORE PROFIT, MORE CREATIVE PRINTING

The biggest thing you can offer your customers and prospects is NEW IDEAS. And low cost multi-color printing is one of the most exciting new ideas your salesmen can offer. Printing Buyers, Production Managers and Advertising Managers all agree that color adds impact and effectiveness to their promotions; but until now, it has also added considerable cost. They are constantly searching for an idea such as this one, and will welcome your sales call to hear the money saving details of multi-color printing with this famous Dayco combination.

Does it really work? Well, just take another look at these four pages.

This entire folder printed with Dayco Color Separators, Fountain Dividers, Dayco Rollers and Dayco Gold Seal® blankets.

Please send me___ proof sheets of this insert and detailed information on the DAYCO Color Separators and Fountain Dividers.

Name_____

Title_____

Company_____

Address_____

City_____ Zone____ State_____

Please give me specific information for equipping the following presses.

Make of Press_____

Press Model_____

Sheet Size_____

Dayco Department
Dayton Industrial Products Co.
Division of **Dayco Corporation**
(formerly The Dayton Rubber Company)
2001 Janice Avenue *Melrose Park, Illinois*

Printed in U.S.A. Form No. A-2347

ORIGINAL
HEIDELBERG
CYLINDER
"Good we figured this job for the Heidelberg, or we'd have been outpriced."
— Ted Huerlander, Sales Representative
"If there's any profit in a job, the Heidelberg will find it."
— Freeman Craw, Vice President

Photographed at Tri-Arts Press, New York . . . currently operating two 21x28" and three 15x20½" Heidelberg Cylinder Presses.

Competition keener every day?

Here's *why* 21 x 28" and 15 x 20½" Heidelberg Cylinders will give you more production every hour, more saleable sheets at the end of every shift.

- Single revolution principle features a slowed down printing stroke and accelerated return stroke. 25% longer impression time means more jobs are run at 4000 or 5000 iph, respectively, without sacrificing quality.
- Sheets positively controlled from feed right through to delivery by spring loaded grippers. No tapes, rollers or other frictional devices. Top speed printing is an *actuality*.
- Continuous delivery and pre-loading device give peak production hour after hour, on all kinds of jobs.

Features like complete accessibility of form and cylinder, built-in washup, speed form positioner – all add up to more profits. Ask us for a demonstration and see for yourself why –

ORIGINAL HEIDELBERG®

"Letterpress profits really begin when you 'put it on a Heidelberg'"

HEIDELBERG SALES AND SERVICE NATIONWIDE

Glendale, L. I., N. Y. • Los Angeles, Calif. • Houston, Texas • Chicago • Cleveland • San Francisco • Portland • Seattle • Denver • Salt Lake City • Albuquerque • Phoenix • El Paso • Kansas City • Atlanta • Minneapolis • Washington • Richmond

New York City Display Room — 180 Varick Street

For More Information Circle 86 on Reader Service Card

How to put new color in your profit picture

USE GREAT NORTHERN'S

POPULAR FAST-RISING JET

Smooth, bright, fine-fibered sheet yields new highs in customer satisfaction for supplements and all quality work

Let's face it. For you as a printer . . . for you as a publisher . . . the big thing today is the upward-zooming use of color, especially in the supplement field. Anything looks better in color, And color *sells*.

JET sets off color in the supplements you print, by whatever process. JET is widely used for gravure and offset printing. It's right at home with letter-press.

Nobody knows how to make groundwood papers better than Great Northern, and JET proves it. Made from selected pulps, it is carefully calendered for the right degree of surface smoothness. Scientific treatment and blending of pulps produce an extra white sheet. The result is good definition and contrast in halftones, clean text, and true color reproduction that sparkles.

Sunday edition or special-occasion, JET is the way to make a supplement stand out. It's the thrifty, profit-building sheet for other quality work as well . . . from magazines to catalogs, directories to pocket books.

Don't just say we told you. Try some — you'll tell yourself here's the paper just made to make money, *for you*.

GOOD THINGS you'll like to know about Great Northern's JET

Quality-bred. Only selected fine-fibered groundwood is the basis for JET.

Extra white. Careful treatment and blending of pulps produce an unusually clean, white sheet.

Color-faithful. Whiteness and uniformity provide for brisk, clear reproduction of color work as well as black-and-white. JET takes ink quickly and evenly, without spreading.

Custom finished. English, Machine, Antique, Eggshell, Bulking — you have your choice of the right finish for every job.

Choice of weights. Basis weights (25 x 38 sheet) range from 35 to 55 lbs.

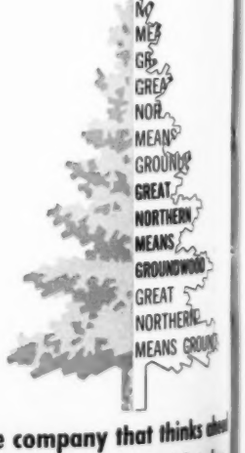
Choice of color. JET comes in white or blue-white.

Priced right. Compare JET quality and cost! You'll be surprised.

GREAT NORTHERN PAPER COMPANY

Mills in Maine

Sales Offices: 342 Madison Avenue, **New York,** MUrray Hill 2-5984
230 North Michigan Avenue, **Chicago,** FInancial 6-1993
20 Providence Street, **Boston,** HAncock 6-7960



The company that thinks about . . . does the best job today

"Great Northern Means Groundwood" . . . custom-made across-the-board

JET Papers make up only one branch of Great Northern's "family tree" of groundwood printing papers. They, too, are made only to your order, in our mills in the Great Northwoods of Maine . . . in any one of a wide variety of finishes, weights and colors. Matching the right paper to the job is our business throughout the groundwood line. If it is printed in quantity, and *printed for quality*, there's a Great Northern Groundwood Printing Paper ready to be blended to your needs . . . at a thrifty price. An experienced Great Northern sales representative is as near as your phone. Call him in on your next job . . . now.

HELPFUL LITERATURE

FOLDERS · Sales Aids · Instruction Sheets · BULLETINS · Catalogs · BOOKLETS · Brochures

Circle Numbers on Reader Service Card in This Issue

Keep Yourself Informed. The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please circle the numbers on the Reader Service Card in this issue for the bulletins you wish to receive. Drop the self-addressed card in the mail. PRINTING PRODUCTION will forward your request.

Composing Room

UNIVERSAL STRIP CASTER

Specifications of the Universal strip caster are listed in a folder prepared by Universal Mono-Tabular Corp. Included in the folder is a 2 pt. hairline sample. Circle No. 328 on Reader Service Card.

LINOTYPE NEWSPAPER BODY FACES

Mergenthaler Linotype Co. has prepared two portfolios showing the newspaper body faces available for manual and Teletypesetter typesetting. The publications are entitled *Newspaper Body Faces* and *Linotype Teletypesetter*. Circle No. 352 on Reader Service Card.

STAR PARTS QUADDERS

The Star (Model H) Mechanical quadder and the Star (Model G) Economy quadder are described in detail in a brochure issued by Star Parts, Inc. According to the manufacturer, either model can be applied to any 30 pica Linotype or Intertype machine. Circle No. 323 on Reader Service Card.

MATRIX COLOR CODING

A brochure explaining the operation of the Matrix Contrast system of color coding matrices has been prepared by Matrix Contrast Corp. The system is said to eliminate wrong font mistakes and reduce composition errors and transpositions. Circle No. 335 on Reader Service Card.

NEW RCA ELECTRO TYPE SETTER

A pamphlet describing the new DMD Electro Type Setter has been issued by Radio Corporation of America. The Type Setter is said to bypass the keyboard assembly and drop mats directly from the verges. Reportedly, 540 characters per min. may be set with this system. Circle No. 314 on Reader Service Card.

EUROPEAN TYPE SPECIMENS

Amsterdam Continental Types & Graphic Equipment, Inc., has prepared a specimen sheet showing European type faces now available. A total of 141 type faces in 66 families are included. Circle No. 344 on Reader Service Card.

Platemaking

GOODKIN SAME-SIZE CAMERA

Literature describing the Goodkin Vertical SS camera has been made available by M. P. Goodkin Co. The camera is portable and may be used to produce same size line and halftone negatives up to 11 in. by 14 in. Circle No. 347 on Reader Service Card.

PREPARATION OF ENGRAVING ZINC

A booklet summarizing the processing of zinc to be used in engraving operations has been published by Atlantic Zinc Works, Inc., and Rolled Plate Metal Co., Subs. of Ball Brothers Co., Inc. Circle No. 307 on Reader Service Card.

HAMILTON EQUIPMENT CATALOG

Hamilton Manufacturing Co. has prepared a catalog on its line of lithographic equipment. Among the items included are formliners, dot etching tables, retouch tables, and storage cabinets. Circle No. 340 on Reader Service Card.

STA-HI MASTER FORMER

Literature has been issued describing the Master Former manufactured by Sta-Hi Corp. The unit may be used on regular and packless mats. Circle No. 324 on Reader Service Card.

HAMMOND PLATE SHAVER

Literature has been prepared on the Hammond plate shaver by Hammond Machinery Builders, Inc. Features of the unit include a carbide blade, a ball bearing screw drive which reportedly yields deeper shaves, and a shaving range of 0.125 in. to 1 in. Circle No. 343 on Reader Service Card.

TABLES FOR STRIPPING AND OPAQUING

A bulletin describing nuArc light tables for stripping and opaquing has been prepared by nuArc Company, Inc. Models ranging in size from 23 in. by 28 in. to 42 in. by 62 in. are available. The tops on the larger models may be removed for moving. Circle No. 331 on Reader Service Card.

MAGPLATE MAGNESIUM PLATE SADDLES

Folders giving specifications and uses of Magplate magnesium plate saddles have been issued by Magplate Division, Brooks & Perkins, Inc. According to the sponsor, the close tolerance of the saddles minimizes makeready for plate level inaccuracies, reducing downtime. Circle No. 327 on Reader Service Card.

FAIRCHILD ENGRAVINGS

Details on the Scan-A-Graver engraving process and Scan-A-Plate engraving material are found in a booklet issued by Fairchild Graphic Equipment, Div. of Fairchild Camera and Instrument Corp. The booklet is entitled *Pictures Like These*. Circle No. 334 on Reader Service Card.

BRIGHTYPE PROCESS

A case history of the Brightype process in use is available from Ludlow Typograph Co. Uses of the process include conversion of final art or pasted-up mechanicals and reproduction proofs to film negatives, and conversion of existing process color plates to film for offset or letterpress reproduction. Circle No. 338 on Reader Service Card.

CATALOG OF STEREOTYPE CHASES

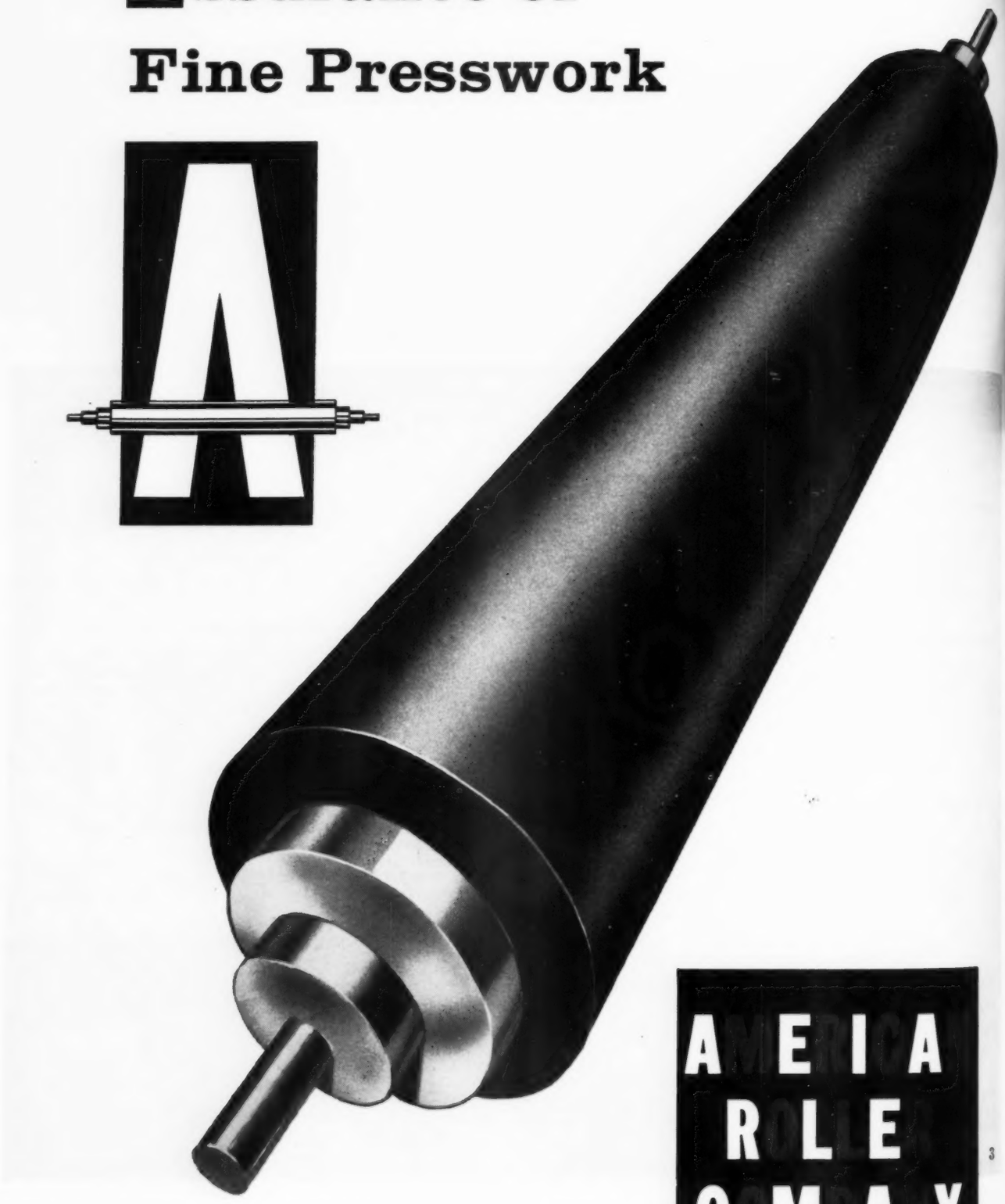
Amsco stereotype chases are described in a catalog prepared by American Steel

(*Continued on Page 86*)

NEW! . . . BRILLIANT WHITE
FINCH OFFSET SUPPLES
ALL THREE OF YOUR MOST
IMPORTANT REQUIREMENTS
FINCH, PRUYN & COMPANY, INCORPORATED — GLENS FALLS, NEW YORK
FINCH OFFSET

A swatch book of Finch offset papers is offered by Finch Pruyn and Co., Inc. The paper is stocked in six sizes and in 50, 60 and 70 lb. weights. Circle No. 322 on Reader Service Card.

Assurance of Fine Presswork



AMERICAN ROLLER COMPANY

CHICAGO · MILWAUKEE · INDIANAPOLIS · ST. PAUL · KANSAS CITY

For More Information Circle 12 on Reader Service Card

Photoengraver lifts 0.025 in. letterpress wrap-around plate from fast etching machine in plant of Marathon Corporation, Menasha, Wis.

Our Experiences with WRAP-AROUND PRINTING

By **ROBERT H. DOWNIE,** *Marathon Div. of American Can Co., Menasha, Wis.*

ONE of the imminent trends in the printing industry is the growth and development of the letterpress wrap-around plate principle. Interest reached a climactic point last year with the introduction at the Graphic Arts Exposition in New York of presses specifically designed to accommodate thin flexible plates.

During Exposition Week, the Research and Engineering Council of the Graphic Arts Industry sponsored a full day's session on the subject with a panel consisting of men having actual experience in the new field. Since then the American Photoengravers Assn. and the Folding Paper Box Assn. of America have made wrap-around letterpress a prominent part of their annual meetings. There has been a great deal of soul searching among industry groups and it is an understatement to say that there has been some adjustment in their various interpretations of jurisdictional philosophy.

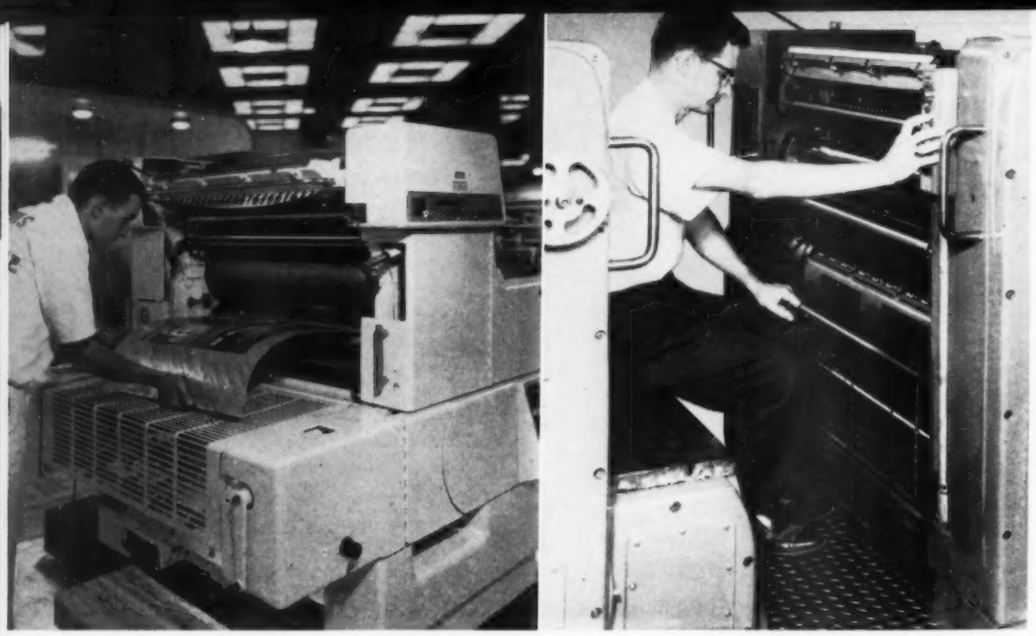
The question that must come to the mind of an interested printer is that if this idea is so good, why hasn't it been done before? Or, if he knows a little of the industry's background, why have the attempts in the past never developed beyond certain specialized applications?

The idea of a thin flexible relief-etched plate containing all the printed matter in one unit is not new. But it had to await certain developments and conditions before it could be reduced to practice.

Prime Obstacles Overcome

First and foremost of these developments was the advent of the Dow fast etching method. In a single blow it made multiple direct printing plates possible. Its first use in producing nonundercut engravings is going to be overshadowed by its application to the mass production of printing plates.

The second requirement in the successful development of the wrap-around printing system was for an inking system that could ink a shallow relief plate without bottoming as well as possess the means to distribute the ink.



Views of the two wrap-around letterpresses on the market. At left the pressman has inserted one edge of a thin zinc relief plate in the clamps of the Harris press after which he will push the jog button so the plate will wrap around the plate cylinder. The pressman at right is checking wrap-around plate on plate cylinder of the two color Miehle 30 rotary letterpress. Before mounting the plate he will swing the form roller assembly upward to provide maximum working room.

The third requirement was the need for a reservoir of knowledge on how to photocompose on large surfaces, how to coat and handle a large plate, and how to obtain fully composed color corrected negatives prior to platemaking. These requirements were lifted bodily from the lithographic industry. It is just as well this development work had been done by the lithographic industry because one wonders if photoengravers could ever have been convinced it was possible.

The fourth item appears to be that letterpress had to feel the economic pinch before it would look to new ways.

Marathon's Development Experience

Having presented the above general picture, it may be of interest to follow the wrap-around development as it evolved at Marathon Corporation to illustrate an individual company's approach. Actually, evolvement started before much serious thought had been given to wrap-around printing. Justification for Marathon's venture into this development was letterpress's ability to hold color and the scope it afforded in ink-solvent selection.

Our first intention was to skip the engraving pattern step in letterpress platemaking. We wanted to obtain lightweight plates to provide easier handling, photocomposed units, and hoped to process the work completely on the curve to give undistorted register at higher average press speeds. All this, if realized, would give us a superior printing plate in both cost and quality to the photoengraving-electrotype combination we were then using. We succeeded by starting with precurved magnesium blanks of precise caliper and curvature by applying a mixture of offset, gravure and automated techniques.

The coating of the photoresist and the exposure to a fully composed negative is done on the curve. The development, fixing, intermediate washes, burn-in, and descum are done on an automatic processing line.

Up to this point the preparatory work is executed in the same manner as for an offset plate. The printing image on the plate is now etched in relief.

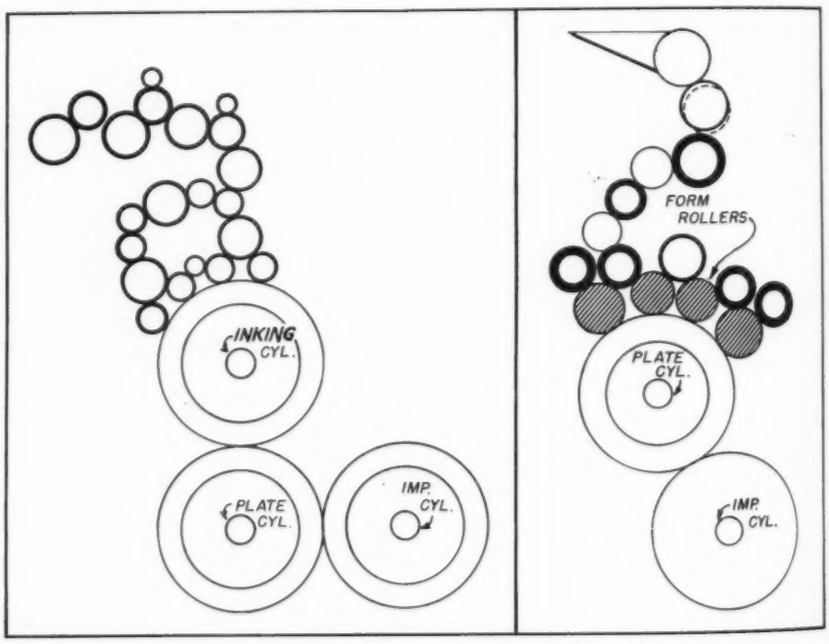
We make combination line-halftone plates as well as all-line plates. Plates are etched on 0.025 in. thick metal. On those plates in which we use 100 line halftone screen, etching depth in highlight areas is normal. In the non-printing areas we secure approximately 0.012 in. depth with no routing.

Plates Etched in Curved Form

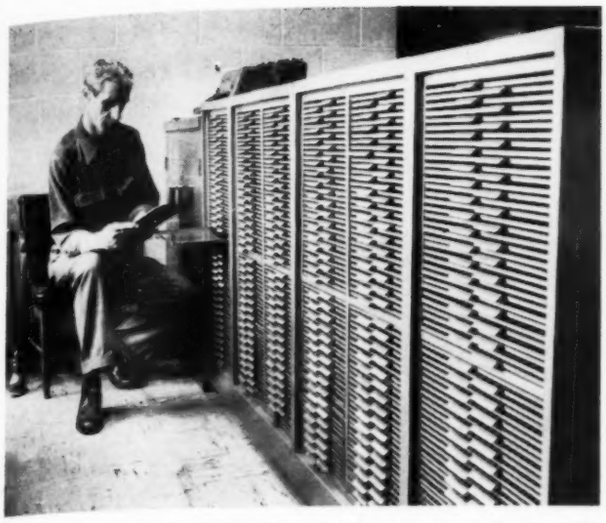
The etching of the plate is done in a large curved etching machine in which can be handled up to a 60 in. by 72 in. area of metal at one time. The machine was built to our own design by Master Etching Machine Co. After the platemaking operations have been completed, the plate itself can be chromed.

Coincident with this development we had been working with Harris-

(*Continued on Page 66*)



Left diagram represents an observer's impression of the arrangement of the inking mechanism on a Harris wrap-around letterpress, after seeing the press in operation. The single inking cylinder supplies ink to the relief plate. The diagram at right represents arrangement of the inking mechanism for one of the printing units on a Miehle 30 two-color wrap-around letterpress. Press may be equipped with different plate cylinders for printing wrap-around plates or electrotypes.



Everett Kerwin, head of the dispatch department, at Peoria (Ill.) *Journal-Star*, assists in refiling plates in the new cabinet equipment for storage of plastics, zincs, electros and casts from fractional column to full page size. Cabinets are labeled live and save so that new and used material will not be mixed. Proper storage allows stereotype department to cast mats during slack periods.

William Kent, in charge of national advertising and dummying at the *Journal-Star*, inserts a small file folder containing mats into one of the new mat cabinets. These cabinets also are used to separate save and live material, while color mats are kept flat in the small cabinet on top. Large cabinets accommodate fractional column mats up to six columns, while the center cabinet is made for full page mats.

New Ideas on Dispatching

SEVERAL new ideas in the handling of national advertising material have been introduced in the dispatch department of the Peoria (Ill.) *Journal-Star* by Frank A. Green, production manager and Walter A. Barker, national advertising manager.

Their first step was to discard all storage equipment which had accumulated from other departments over the years. Equipment was ordered to properly file all mats, zincs, electros and plastic plates. Green stated that storage space was now in excess of 140,000 sq. in.

Increased storage facilities enabled dispatch to send mats to stereo for casting during slack periods. Formerly mats were sent out only 48 to 72 hrs. ahead of publication because it was feared they would be lost.

The composing room has carried a heavy responsibility in the past to see that the material was inserted in the paper at the proper time. To remedy this situation, William Kent was placed in charge of all national advertising material and dummying. Formerly, the material was sent to composing with a single schedule sheet. Now, each ad carries an order which includes a description of the material and its disposition.

When an order is received from the agency, the dispatch department is notified and the insertion dates are noted on a daily national schedule sheet. As the material arrives, orders are written and if there is casting to be done, the mats go to the stereo department. Since publication dates are on the mats, stereo can adjust its schedule accordingly. When the casts are finished and returned to dispatch, they are stored in assigned trays 5/32 in. deep. The publication date is written on the back. There is no need for index cards because all tray label holders carry the brand, firm, and agency name. Mats are kept in a special file folder in a large file cabinet so that if needed, they are instantly available.

The composing room knows from the order what disposition is to be made of the material. The material is returned to dispatch after composing has finished with it. National advertising has already indicated whether or not to save the mats, plastics or electros. Casts are discarded unless there is an immediate rerun order.

Plate cabinets are labeled live and save, so that current material is never mixed with plates which have already been used. Material which is saved has the publication date on it when it is refiled.

"We are now in the process of determining a policy on save material," Barker said. "While we have not yet set up a definite deadline date for holding it, we expect to do so shortly. We are preparing a double postcard which dispatch will use. Two weeks before the material reaches the discard expiration date, we will notify the agency that unless they advise us by return card to save it, the material for the named campaign will be removed from the cabinet and discarded.

"This, we believe, gives the agency ample time to consult with the account on a rerun. If they decide later to run it and the material has been discarded, we have fulfilled our obligation to them."

RIT Offers Summer Courses

Two six week sessions of courses in various aspects of letterpress printing and offset lithography will be offered this summer by Rochester Institute of Technology.

All courses offered will be available during the second session, July 11 to Aug. 19; a selected number of courses will be available during the first session, June 6 to July 15. Among the courses offered will be: copy preparation, estimating, Fotosetter operation, platen presswork, visual color relation and Linotype and Intertype composition.

Dormitory accommodations will be available. For information, write: Department of Printing, Rochester Institute of Technology, 65 Plymouth Ave., S., Rochester 8, N. Y.

By JOSEPH W. DRAGONETTI
Philadelphia Correspondent

BRIGHTYPE SHINES

In Many Kinds of Work in Philadelphia Plant

Typographic firm uncovers interesting uses for Brightype platemaking reproduction process. Successful in applying method to four color process, Dycril plates, steel die engravings, sheet music, newspaper color, wood cuts, and in book and magazine work

MAKERS of wood engravings in the period immediately after the Civil War must have been little concerned with how their work could be reproduced a century later. The reproduction of 100-year-old wood cuts, however, recently became the concern of a small group of Philadelphia printers and the solution belongs to a comparatively new reproduction process.

The process, known as Brightype, is a development of Ludlow Typograph Co. It has been successfully applied to reproducing these old cuts of Civil War scenes and even to other more interesting platemaking applications by the advertising typographic firm of Alfred J. Jordan, Inc., Philadelphia.

After more than a year's use of the process, production executives of the Jordan plant have uncovered many different ways in which Brightype can be applied. But first, what is Brightype?

Brightype equipment is used for photomechanical reproduction purposes. With it may be reproduced type and picture images direct from hot metal type forms; it may also be used for producing reproduction or photographic type matter proofs, color process work, as well as original printed material, such as book pages, which can then be reproduced by any printing process.

Essentially, the Brightype equipment consists of an 18 in. by 24 in. darkroom style camera featuring same size fixed-focus and special frontal lighting units. Behind the darkroom wall, there is a camera back with sensitized film holder on the swing-out door. Also contained within the darkroom are the necessary photomechanical preparation and developing equipment.

Reproduction by the Brightype process of one of the 100-year-old wood engravings of Civil War scenes recently discovered in Philadelphia. Because of their condition, direct printing from the old cuts was ruled out. The image was converted onto film through experimenting with the Brightype process in the plant of Alfred J. Jordan, Inc.

In the front end of the camera, the light source for exposure of the film in the darkroom is mounted on a 5 ft. diam. disk which constantly revolves around the camera lens within an enclosure. The disk is studded with a number of Mazda lamps which in revolving produce light that is reflected from the subject (type form, repro proof or paste-up). The light is evenly distributed and is shadowless over the plane of the sensitized material in the camera back.

With respect to reproducing type forms and photoengravings, the form is first sprayed with a black (light absorbent) solution. What is known as the printing surface is then wiped clean to remove the black coating. The printing surfaces of the form are then additionally cleaned by wiping with a clean rubber block. The locked chase is then raised to vertical position before the camera lens for photographing. After exposure, the film is developed.

In an interview with James P. Banta, secretary-treasurer of Alfred J. Jordan, Inc., PRINTING PRODUCTION asked for some details regarding application of Brightype in his plant.

Banta has become increasingly

enthusiastic about Brightype since installation of the equipment in February, 1959. He explained why his company adopted the process.

"It represented evolution rather than revolution in typography," he said. "It is a bridge between metal type and cold type on film.

"We recognized the need in the typographic business to expand into the photographic field. We also were aware of the need to put type onto film. After investigating several systems we felt that Brightype was suitable for the purposes we had in mind.

"It bridges the gap between metal type and the trend toward photographic type in the Graphic Arts industry. It was not an abrupt change. Brightype equipment was installed in our shop without antiquating or duplicating any of our present facilities or manpower."

Asked to comment on some of the utilities of the process, Banta said: "The quality of the Brightype product is at least comparable to the finest methods of reproduction.

"In some cases, there are savings in time and in reproduction costs, especially where entire publications are converted from letterpress to sheet or webfed offset or gravure.

"A feature of Brightype is that because of the manner in which material is prepared for the camera, even old, worn type is reproduced so that it is at times virtually indistinguishable from new. Both old and new type and plates may be locked up in the same form, with uniform results.

'Shot in Arm for Letterpress'

"The Brightype process is a versatile one in the conversion of process color plates to film. By eliminating the repro-proof step, offset and gravure plates are made direct from film which is only one step away from the original. It also permits such procedures as reverse type on film without stripping, incorporating windows in existing material, and no-shadow photographs of mechanical pasteups."

Banta believes that Brightype has created a new field for the Jordan company in doing conversion work from letterpress to other printing processes.

"It can prove to be a shot in the arm for letterpress," he said, "and is a means of applying photoengravings to many other fields. Every reproduction method in the Graphic Arts is now leaning on photographic material.

"The fast etch process and the new wrap-around plates in photoengraving are dependent upon photographic material for reproduction purposes."

Banta said there were few, if any, drawbacks and no out and out failures. Brightype cannot enlarge or reduce, but he sees such a possibility as a natural development. "Meanwhile," Banta said, "you get excellent photographic copy to enlarge or reduce by conventional methods."

There have been a number of other types of jobs in the Jordan plant's experience.

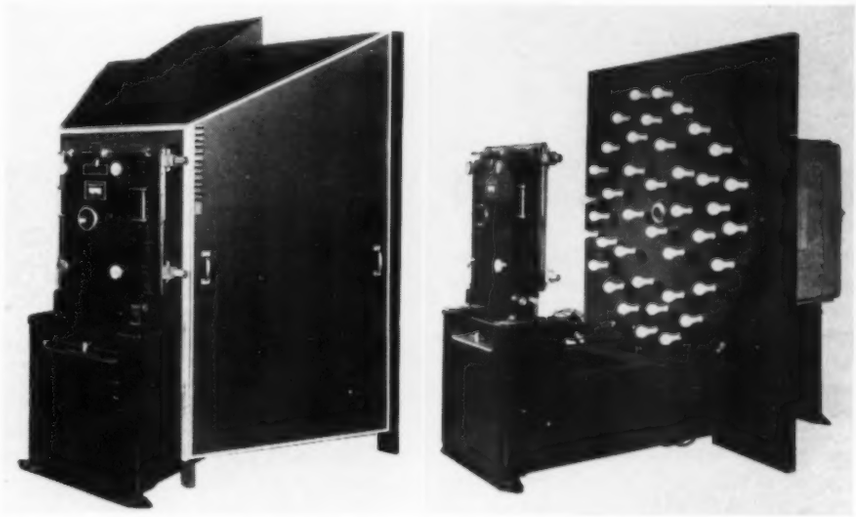
For instance, there was a real challenge in a job which a customer wanted Brightyped. There was a very fine vignette around a four color illustration. The plates furnished to the typographer had a definite hard edge which, of course, the Brightype camera picked up. The problem was solved this way: Banta used a photographic chemical reducer on the film to soften the hard edge. Thereby the lithographer obtained a satisfactory result.

From Wood Cuts to Film

Use of Brightype by Jordan to reproduce 100-year-old wood engravings lends dramatic emphasis to the diversity of this process. A rare collection of Civil War wood cuts was obtained by the Franklin Printing Co., Primos, Pa. The thought occurred to Banta that these old wood cuts could be reproduced through the use of Brightype.

Through discussion with Jack Collins, Philadelphia representative of Ludlow Typograph Co., and George E. Hess, assistant to Pres. John R. Williams of Franklin Printing Co., it was decided to reproduce initially three of the old cuts photomechanically on Brightype.

The results, PRINTING PRODUCTION was told by both Hess and Banta, were excellent. So much so, that Franklin Printing Co. is planning to Brightype reproductions of many of the cuts in its 1961 calendar commemorating the 100th anniversary of the start of the Civil War. The printing firm is also planning the issuance of a series of prints of the old engravings suitable for framing.



At left is view of Ludlow's Brightype darkroom camera with cover in place ready for exposure to sensitized film. At right, the cover has been removed to show rotating disk with Mazda lamps which provides shadowless lighting. Copy has been raised from horizontal to vertical position before camera lens. Lighting means is a part of darkroom wall.

"Some of the cuts were warped, and the passing of time had caused other damage," said Banta. "You could print from them directly, but this would present a problem and cause further deterioration.

"Hess and I decided to convert the wood cuts onto film through the Brightype process with which we had considerable experience up to this time, but nothing quite as unusual as this.

"Our first attempts were not satisfactory. We first tried an aluminizing technique on the printing face of the cuts. This technique did not work.

"Then we tried the normal Brightype technique and by experi-

Brightype operator in plant of Alfred J. Jordan, Inc., advertising typographers, Philadelphia, sprays black coating on original Civil War wood cut. All of the black coating will be removed from the printing surface of the cut by wiping and afterwards cleaned with rubber block to permit photography on film.

menting with different camera exposures and lens stops we came up with a satisfactory reproduction. We first experimented with three of the engravings. We abandoned the aluminizing technique which is normally used on plastic plates because the aluminum would not adhere to the wood properly.

"We were able," he said, "to photograph successfully after a number of experimental shots at varying exposures and lens openings and even in the developing in the darkroom. Hess was so impressed with what we did that he asked for all our shots, including the unsatisfactory ones we got in the beginning of the experiment."

The calendars can now be printed from plates by either lithography or letterpress, indicating how letterpress material can be converted by Brightype for use in a number of printing processes.

Various Brightype Applications

Other applications mentioned by Banta were:

STEEL DIE ENGRAVINGS, especially those used in letterheads, can be Brightyped successfully. The true image can be converted to film from original material for use in other printing processes, such as offset, so long as all of the image is the height of the plate. This is a potential for new business among stationers, etc.

SHEET MUSIC is an entirely new application. One method is to punch into a metal plate the various signs and symbols. The old procedure is to pull a proof and photograph it. The fine lines, however, would thicken. In the Brightype application, Banta said, the fine lines can be maintained. This is another potential because of sharper image reproduction and better all around printing performance. It's a specialized type of business.

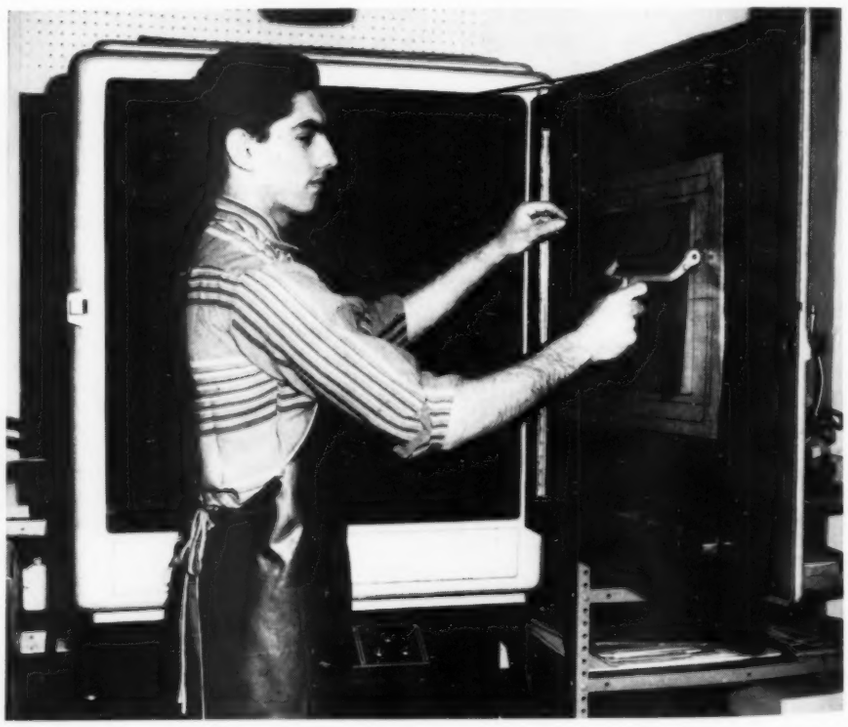
DYCRIL PLATES—The new photopolymer plates, developed by Du Pont, have resulted in considerable enthusiasm on Banta's part. "This is a natural marriage of two Graphic Arts processes," he said. "To make a Dycril plate, the image is required to be on film in negative form. This material-type matter, photoengravings, etc., can be reproduced excellently by the Brightype platemaking process.

"As Dycril will take its place in greater volume in the Graphic Arts industry, the need for film reproduction of type and illustration will increase accordingly, and Brightype will become a natural bridge. It is

James P. Banta (right) and Brightype operator check one of the wood cuts which has been prepared for photomechanical reproduction on film. Black paper matte held down by magnets has been placed around the cut to eliminate glare.

even possible to put four color process plates on Dycril and thus make this new development more effective. Alfred J. Jordan, Inc., has already done a job of that kind—one of the earliest attempts in the field. We were most pleased with the way in which Brightype was used in converting a four color job to Dycril plates."

FOUR COLOR CONVERSION—Brightype has been used by Banta for four color conversions in other plating fields. One customer alone has had about 150 sets of four color conversions. This is in the publishing field.



The operator is placing sensitized film in the swinging film holder in the darkroom end of the Brightype camera. The film is being rolled into place to make it perfectly flat prior to exposure. Maximum film capacity of camera is 18 in. by 24 in.

ROP NEWSPAPER COLOR—Banta points out that there is an especially good potential in using Brightype for four color work in ROP color newspaper advertisements. A recent example was an ad for the American Stores Co. Brightype was used by a Philadelphia newspaper with substantial reduction in costs.

In this method, four color Brightype films of smaller-sized engravings are made and then enlarged photographically for full color, full page newspaper reproduction uses.

Banta called this development "terrific" and said the savings on original preparatory costs were attractive. Four color engravings were made half size and even with the enlarging operations and the Brightype film, it was still more economical than if a set of full sized originals were made. With ROP color constantly on the increase the potentials are obvious.

BOOKS AND PUBLICATIONS—He also sees increasing potentials in the book publishing and publication fields. One of Jordan's book publishing accounts has already used Brightype for complete production, including type forms and color illustrations, and was enthusiastic about the fine quality.

Banta and Ralph V. De Kalb, president of the company, who are the owners of Alfred J. Jordan, Inc., feel that Brightype has added dimensions to their service for customers without disrupting other operations of the plant.

Information on Scholarships

The program of the National Scholarship Trust Fund of the Education Council of the Graphic Arts Industry, Inc., is discussed in a recently published booklet. Outlined in the booklet are the aims and the development of the program. The pros and cons of various methods of donating scholarships—gifts of cash, securities, gifts in trust—are presented. A suggested form letter for those who wish to donate scholarships is also included.

Copies of the booklet may be obtained from the National Scholarship Trust Fund, Education Council of the Graphic Arts Industry, Inc., 5728 Connecticut Ave., N.W., Washington 15, D. C.

ANPA To Study Men, Methods, Machines At Florida Meeting

A FORMAT broadened to include studies of personnel relations and production methods as well as the traditional display of newspaper equipment and supplies has been adopted for the 32nd Mechanical Conference of the American Newspaper Publishers Assn. Research Institute.

The conference is to be held at the Americana Hotel, Miami Beach,

MARSHALL

CODDINGTON

Fla., June 20-22. Chairman of the ANPA-RI is George Marshall, Portland (Me.) *Press-Herald* and *Express;* vice chairman is W. R. Coddington, Detroit *Free Press.*

According to the tentative program, the conference will be divided into three sessions—one each on men, methods and machines. A feature of the first day's session on men will be a clinic program entitled *Training of Mechanical Foremen.* All who attend the conference will participate as trainees in the clinic which will be conducted by Don Weber, Houston *Chronicle.* The procedures followed by Weber will be patterned after the training program of his newspaper and will cover: Handling men, teaching techniques, and improving over-all operations.

Report on Johns Hopkins Projects

A report on progress of the Johns Hopkins Projects will be given June 21, during the methods session, by Robert Wentworth, director, Production Engineering Div., ANPA Research Institute.

Other topics scheduled for the methods session include: *Pasteup as Training for Photocomposition,* by W. R. Coddington, Detroit *Free Press; Color Registration Procedures,* by J. J. Eberle, Miami *News; Dispatch and Control,* by Randall Barton, Phoenix (Ariz.) *Republic* and *Gazette; Automation in Newspaper Bundle Handling,* by R. R. Cranmer, Williamsport (Pa.) *Grit.*

Equipment and Supply Display

The third day of the conference will be devoted to discussion of the latest lines of equipment and supplies for the newspaper field. According to pre-conference reports, this year's exhibit promises to compare favorably with previous conference exhibits in other cities. It is reported that approximately 100 spaces have been reserved in the display area.

Under the chairmanship of J. J. Eberle, Miami *News,* a discussion will be held on recently developed equipment. Included in the discussion topics will be the Crosfield color web register control, the Goss Varistacker and Torstar equipment, the Hoe Colormatic press, tape mixing and high speed market wire.

Remove Developing Ink In Lithographic Platemaking

Many lithographic pressmen prefer to run plates which do not have the developing ink washed out as opposed to those plates which have the ink replaced with asphaltum.

Charles W. Latham, lithographic consultant, New York Employing Printer Assn., indicates that this may be true where asphaltum is thinned with turpentine, since it tends to make some lacquers less ink receptive. A few developing inks dry completely and as a result will not accept ink on the press.

If, however, the developing ink is washed out and asphaltum applied, ink receptance will generally be better on the press. In addition, washing out the plate will minimize the possibility of gum droplets hardening on the image while the plate is waiting for the press. When it is known that a plate is not to be run immediately, it is always wiser to remove the developing ink and apply asphaltum.

Originally intended for the business world, offset duplicating method has become stepping stone for many printers.

THE offset duplicating process, originally intended to save the business world from high expenditures for its printing, has become the important vehicle by which many small printers have entered a new-found prosperity.

It has only been a short span of time since the businessman was told he could produce his own printing at less cost by means of newly-developed simplified equipment. Many companies were quick to accept the new cost-cutting methods and installed printing departments of various sorts.

So were many small printers. Ironically, the situation has given the printing industry a competitive position against the so-called captive plant.

Printers who acquired the new duplicating machines found they were able to gain knowledge and experience in lithographic techniques. In fact, many shops that now operate small and medium size offset presses got their initial start with some form of duplicating equipment. In a number of cases, the small duplicators have been retained to handle orders that are too costly to put on larger presses.

During the past few years, the small offset press equipment and supply field has undergone a unique development growth. The printer now planning to add offset to his plant's operations is fortunate in being able to choose from a multitude of equipment. To a small printer who has had little exposure to lithography, the equipment available probably presents a formidable problem in purchasing decisions. A review of this range of equipment is provided here as a guide to the uninitiated litho printer as well as to familiarize the experienced with some of the new developments.

The appearance of numerous small photomechanical camera units provides the printer with a means of producing his own negatives or positives quickly and economically. This eliminates the need to send his jobs to an outside source for photomechanical reproduction. Larger and more complex camera work, however, can still be sent to a trade plant where it can receive the skill and attention of highly trained personnel.

Plants operating offset presses within the 10 in. by 15 in. through 17 in. by 22 in. range have a greater variety of plates to choose from than plants operating larger equipment. Deep-etch plates yielding 100,000 to 200,000 impressions can be run on small offset duplicators as well as some types of direct image paper plates yielding approximately 500 copies.

Because deep-etch and surface plates require equipment, techniques, and conditions that the printer entering offset would be unlikely to install, only presensitized and paper plates will be described. A need for any of the conventionally processed plates can easily be met by a local trade house.

Most commonly used in the small shop today is the presensitized aluminum plate which features a light-sensitive coating applied by the manufacturer. These plates have gained widespread acceptance because of their relatively low cost and simplified processing technique.

The major piece of equipment needed to produce these plates is a vacuum exposure frame which can be purchased for less than $500. Frames are available as compact, vertical units or as separate vacuum frame-arc lamp for horizontal use.

The presensitized plate requires approximately 5 min. to produce and has an average life approaching that of zinc surface plates. Through use of special long run lacquers, thousands of additional impressions can be obtained. As a result of their grainless feature, these plates are capable of retaining fine lines and minute dots without distortion. Deletions are accomplished with a rubber eraser.

Several variations and styles of presensitized aluminum plates are available. Some plates are negative acting, while others are positive; some are coated on both sides for double utilization; some require the use of two or more chemicals, while others are processed with only one chemical that is a combination desensitizer, developing agent and gum. Selecting the right plate for a plant is largely a matter of experience with several types.

Recent Plate Developments

There have also appeared on the market recently several distinct variations of the presensitized metal plate. One manufacturer has introduced a plate which is developed by removing non-image areas after exposure. It is claimed this method

Product Growth in the

SMALL LITHO FIELD

Offset duplicating opens doors for printers

By RICHARD L. SMITH,
Packaging Corp. of America
Rittman, O.

eliminates overdeveloping, plugging of screens, and early image loss on the press.

Another plate is mechanically rather than chemically grained, which is reminiscent of the conventionally grained plate. The rougher grain is claimed to provide better image-retention and increased water receptivity.

Also available is an aluminum plate for which the coating is supplied separately. After the coating has been wiped on and dried, the plate is ready for exposure.

Another manufacturer utilizes a plate developing machine to produce aluminum plates in less than a minute. Unexposed silver salts of the negative are said to be transferred to the plate which is developed automatically in the machine.

Sensitized paper and plastic coated impregnated plates are finding increased use in small plants. With these plates, the printer can profitably increase his volume to include a variety of duplicator work. A multitude of simple, short run line work such as forms, work reports, notices, menus, letters, charts, and contracts can be ideally run from paper plates.

Generally acknowledged to have a maximum life of about 2500 impressions, recent advancements have resulted in claims of as high as 5000 copies from plasticized paper plates. These inexpensive plates are produced in less time than a presensitized metal plate, and usually require the application of a desensitizing agent prior to being placed on the press.

Requiring no exposure or development, one of the most versatile plates that can be used on a small offset press is the direct image plasticized paper plate. Images can be applied by several means including typewriter, special pen, pencil or crayon, Varityper, Justowriter, or by proof press, letterpress or offset printing. Plates are available for runs varying from 500 to 2500 copies.

Copy Preparation Techniques

Worthy of mention in connection with camera and platemaking equipment and supplies are some of the copy preparation techniques and supplies that are available for small offset.

Cold composition has become an important method in the preparation of copy for offset. For the small shop there are kits available that contain entire fonts of type of various sizes and design, reproduced on paper or light card stock in individual character or strip form. These characters are pasted on the artwork and photographed.

A variety of typewriter composition with a wide assortment of type faces is a practical and inexpensive means of preparing copy for price lists, booklets and small publications. This method can be used to prepare direct image plates for short runs, or it can be used equally well for preparing copy for camera reproduction.

Simultaneous copy preparation and negative production is accomplished with the use of what is called a stencil negative. Each spot in the material struck by a typewriter character becomes transparent. The result is a negative that can be used in conjunction with presensitized metal or paper plates.

Small offset presses range in size from 10 in. by 15 in. through 14

(*Continued on Page* 91)

Du Pont Opens New Graphic Arts Lab

A new Graphic Arts laboratory was opened last month by the Photo Products Dept., E. I. du Pont de Nemours and Co., Inc. Described as a "working model of a 1965 photographic section in a progressive printing plant," the laboratory is equipped with latest types of photographic equipment. These, Du Pont officials said, are designed to control every step in the process from mixing developer solutions to determining density of the negative.

The laboratory is located in a new wing of the Du Pont photo products technical laboratory at Parlin, N. J. Uses scheduled for the laboratory include testing new Graphic Arts films and ways of using them; testing new types of quality control instruments and procedures, and adapting them to standard shop conditions, and training sales personnel in the use of new films and techniques.

As it is laid out, the laboratory is divided into three exposure and development areas, each with a different type process camera and related equipment; a chemical mixing and distribution area from which mixtures are piped to all processing rooms; a film storage vault; an offset pressroom, and a lecture and demonstration room.

According to a company official, the following control features have been incorporated in the laboratory:

The humidity and temperature of all laboratory areas are controlled and may be varied to duplicate any special conditions. Light sources are on voltage-stabilized lines, and integrators are used to control exposures. Ceilings and walls of all camera rooms are painted with a non-reflective paint to reduce lens flare. A sensitive mercury thermoregulator, specially adapted by the laboratory, reportedly holds processing temperatures within a fraction (0.05) of a degree. Other instruments regulate processing times, processing agitation, and solution replenishment and drying conditions.

Improving methods for making color separation negatives is one of the objectives of Du Pont's new Graphic Arts laboratory. Camera operator is shown placing original art and color guide in camera copyboard preliminary to making an experimental indirect color separation shot. Walls and ceiling of this and other camera rooms are painted with non-reflective paint to reduce lens flare.

Handling Publication Plant

SCHEDULES

. . . use of simplified system of schedule sheets and tri-daily conferences helps N. Y. firm control production.

By **FRANK MYRICK**, *Eastern Editor*, PRINTING PRODUCTION

SECOND OF A SERIES

SCHEDULE control difficulties are usually encountered with the introduction of publication printing into a plant normally accustomed to commercial work. This is due to the need of meeting publication details and deadlines. The nature of the publications, of course, will considerably alter the degree of control. The plant still heavily engaged in commercial printing, at the time it acquires a small number of short run publications, will have a greater need for control in order not to snarl production of both types of work.

On the other hand, the plant which is engaged in a comparatively small number of long run publications finds it easier to control the situation since there is not the pressure of a number of small publication deadlines, compounded by editors frequently unaware of the importance of scheduling. In addition, the plant producing long runs is usually dealing with professionals and with known time factors which can be worked out in advance with sufficient margin to meet problem situations.

Publishers Printing-Rogers Kellogg Corp., located in Long Island City, N. Y., is unique both in name and basic organization. Its present production control system, however, is tailored to its specific needs. The company maintains one of the largest composing rooms in the metropolitan area to handle the flow of publication work. In its growth it became known for its publication and commercial printing.

PP-RK now maintains both letterpress and offset departments for producing fine commercial printing and publications.

Each division is headed by its own production department with a manager in charge. He assigns supervisory duties, scheduling, and follow-up to a staff of various production men.

As in other plants, the sales department relays the job specifications, required delivery date, and other details to the production department. The production staff then works out the schedule to meet the desired delivery date. Each production man handles the orders of several salesmen.

It is at this point that publication handling becomes separated from the rest of the plant's production. Publishers' has assigned publication control to a special publication production manager operating in the letterpress section. He is responsible for allocating work and maintaining control of the publications which the plant produces.

This supervisor must maintain enough cushion or flexibility so that scheduled dates can be met without pressure and confusion. Beginning with the mailing date, he works backward through press closing date, foundry, lockup, composing room, and copy deadlines to arrive at a schedule. This schedule must allow both plant and customer to absorb some degree of dislocation in event of an emergency. The production capacity of Publishers' composing room lends considerable flexibility to this kind of situation.

For most purposes the plant's production is scheduled about a week ahead, but a long range tentative schedule is plotted covering a period of four to six weeks. Like most publication operations, it is not troubled with break-ins as are book plants.

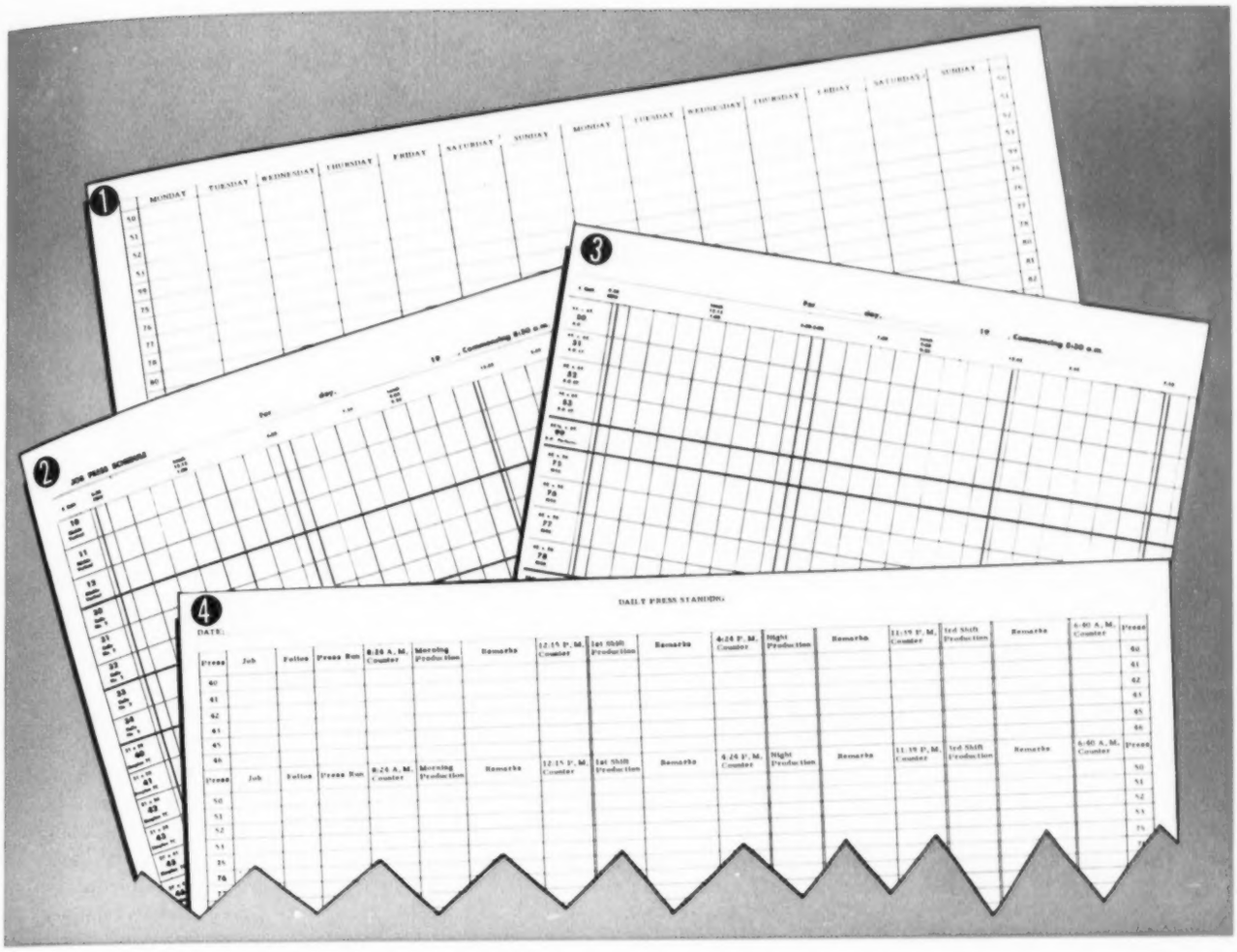
The company's initial schedule control record (form No. 1 in illustration) is a 31 in. by 18 in. ruled sheet showing the three shift divisions. Press numbers are carried at either end of the sheet for quick reference. Job numbers and quantities are entered for each press, for each shift, for each day, for publication, job, and municipal work. A space running horizontally across the form separates presses used for job work from those used for publication purposes. Changes are inevitable and must be made on this sheet from time to time since it covers a period of two weeks.

Managers Review Scheduling

The plant and production managers meet briefly about three times daily to discuss the schedule, to check production, and to lay out work for the following shifts. These meetings are held in the early morning, again about noon, and at 4:30 p.m. A valuable form, reviewed at these times, is the 17½ in. by 11¼ in. daily press standing (form No. 4 in illustration).

This sheet is made up for all major presses, and shows the press number, job title, folios, press run, counter reading at 8:24 a.m., morning production, remarks, 12:15 counter reading, first shift production, and similar entries for 4:24 p.m., 11:39 p.m., and 6:40 a.m. readings. The remarks column enables any difficulty to be quickly registered and reported to plant management. Steps can then be taken to correct lowered production due to any unforeseen cause and to prevent it from backing up.

Individual daily press schedules are prepared for the job department (form No. 2 in illustration) and letterpress publication presses (form No. 3 in illustration). The plant operates three dozen or more letterpress units for the two departments mentioned. In addition to the master schedule sheet for the longer period, the daily schedule sheet provides constant counter check of jobs in the house and running on these presses. The press standing sheet also serves as a quality check



Above are the forms which are the basis for the scheduling system in use in the plant of Publishers Printing-Rogers Kellogg Corp.

as well as giving a quick picture of the plant's production standing in relation to its capacity. Since the plant's daily letterpress production comprises more than one million impressions, it is understandable why this comparison chart is valuable.

System Regarded as 'Unique'

PP-RK, while regarding itself as unique in that it does not maintain elaborate loading boards, control rooms, etc.; nevertheless, effectively uses this simplified system of schedule sheets and tri-daily conferences. It should also be noted that the company's bindery requirements are handled almost entirely by outside facilities.

Publishers Printing-Rogers Kellogg Corp. is headed by Samson R. Field, with John Gantz as executive vice president, Donald Mortimer, vice president, and Samuel Weinberg, as controller.

Production management and control is the responsibility of Edgar L. Budden, plant manager and vice president, and a staff consisting of: William Prager, letterpress production manager; James Bair, publication production manager; Tony Ponzini, offset production manager. Ernest Schmatolla, teacher of estimating of the New York Employing Printers Assn., is vice president in charge of purchasing and estimating.

Stencil Penetration Results In Deep-Etch Plate Scum

Stencil penetration of a deep-etch aluminum plate generally shows up as a light scum which covers the entire surface of the plate except where stopping out has been done.

Charles W. Latham, lithographic consultant, New York Employing Printer Assn., reports that when coating is thick and exposure short, exposed areas may be penetrated in the time required to develop image areas. When the coating is thin and plate grain coarse, grain peaks may become bared during development.

He indicated that development time will vary with coating thickness, amount of dark reaction that has occurred, and types of chemicals used. Dark reaction may be eliminated by developing the plate as soon as possible after the coating is dried. Where plates are photocomposed or complicated exposures occur, it is best to air condition the exposure room. Also, adjust solutions and whirler speeds to obtain coatings which will develop within normal limits. This should enable the platemaker to develop the plate to step six on the sensitivity guide with little danger of penetration.

Miehle To Sell Hantscho Press

Miehle Company, Div. of Miehle-Goss-Dexter, Inc., has acquired the rights to manufacture and sell certain sizes of web offset press equipment manufactured by Hantscho Company. Hantscho will continue to manufacture and sell presses of sizes other than those to be built by Miehle.

● *Web Offset Section meeting in St. Louis hears of gains for process in publication work; deals with plant production.*

By MILDRED WEILER
St. Louis Correspondent

PIA GROUP DISCUSSES

Problems with Web Offset

WEB offset printers gathered in St. Louis last month for clinical talks on matters affecting production, manpower and training in their plants. Four hundred were in attendance for the annual meeting of Printing Industry of America's Web Offset Section held at the Chase-Park Plaza Hotels.

Significantly, Hyman Safran, Safran Printing Co., Detroit, told the members that web offset has created a new field of publication work which heretofore was produced by letterpress. "On one publication we have converted more than 10,000 ads to offset plates alone, all with excellent results," he said.

'Fences to Climb and Mend'

Safran acknowledged that ". . . web offset has its fences to climb and a few of its fences to mend before it is wholeheartedly accepted by publishers. For many years the process has been associated with short run, rather badly printed fliers, brochures and publications. Despite improved quality results in the last few years, it's hard for a publisher to think in terms of his magazine being wholly produced by offset."

Among the needed improvements discussed by Safran was a means for multiple split fountain work. He also spoke of the larger offset plate gap which causes waste of paper length the publisher can ill afford because of paper costs.

One of the features of the meeting was a plaque presentation to Herman J. Schultz, first president of the Web Offset Section, in appreciation of his pioneering efforts in web offset and development of the Web Offset Section of PIA.

The 1961 meeting of the Web Offset Section will be held at the Edgewater Beach Hotel, Chicago, April 19-21, 1961.

The present officers were reelected to serve a third term. They are: James N. Johnson, Standard Publishing Co., Cincinnati, president; Paul Lyle, Western Printing & Litho Co., Racine, Wis., vice president; Fred Best, Canadian Printing & Litho Co., Montreal, treasurer; Jim Bowler, Courier-Citizen Co., Lowell, Mass., secretary.

A panel of six industry representatives used a list of questions that had been gathered previously as the basis for a day-long discussion on web offset production problems.

A question that interested many was "Since most web offset presses are being installed with d.c. motors powered by motor-generator sets, does anyone do any press operation with static (silicon rectifier) drive system and d.c. motors? Are there any advantages or disadvantages over motor-generator sets?"

James E. Johnson (left), Standard Publishing Co., Cincinnati, and president of PIA's Web Offset Section, presents plaque to Herman J. Schultz, Schultz Lithographing Co., Chicago. Schultz was Section's first president.

One man said he found there was no difference or advantage one way or the other except in the rotary type there is just a little traction loss. Another said that with a motor-generator set you do not have moving parts, but added he believes there is little cost advantage. He wondered if anyone had both kinds of systems in his plant long enough to make comparisons.

A plant owner with both systems said in talking to his electrician he found that a switch is being made from the motor-generator system to the silicon rectifier equipment. He said it is amazing to find that a little rectifier can do the same job as a lot of equipment on the floor.

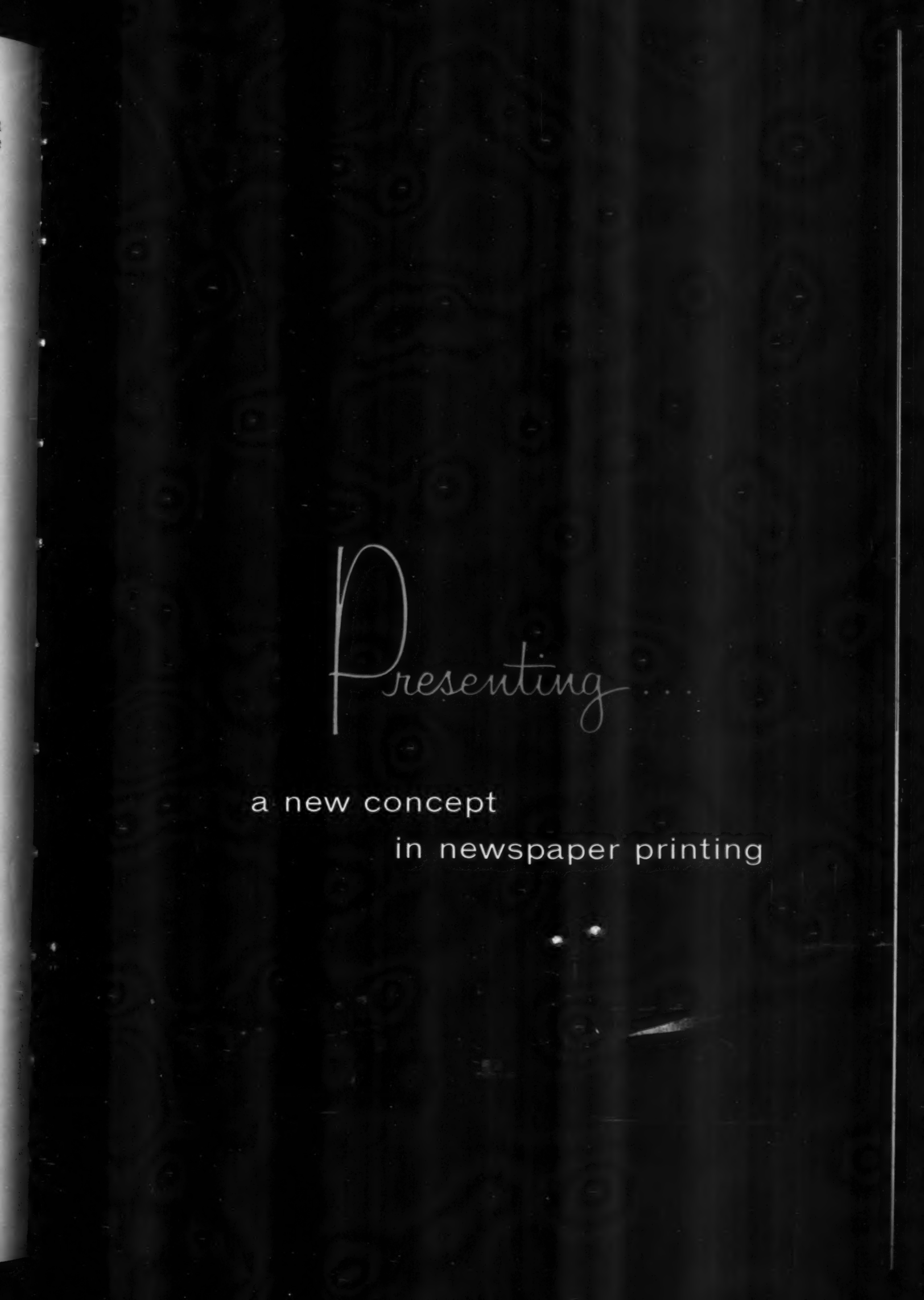
Mechanical Operating Problems

The clogging of cylinder cavities when pasting, which caused jamups, was another problem. As a solution one man said if you think of it ahead of time you can have the manufacturer groove the cylinder about 1/16 in. deep right where you have the paste lines to eliminate the trouble.

"How close to the paper roll core do you usually run, and have you found any decided disadvantage running below 2 in. to the core?" was another question.

One answer was given from experience in cases where the roll is run down to about 2 in. diam. or

(Continued on Page 47)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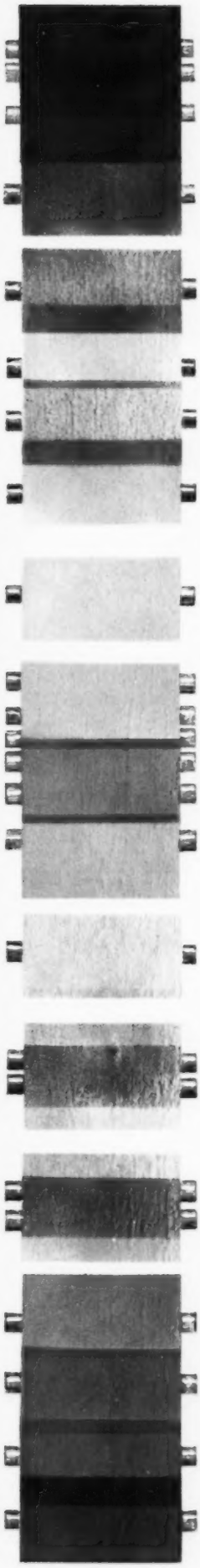

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to all working parts of this press through radical new design—yet, it's fully enclosed.

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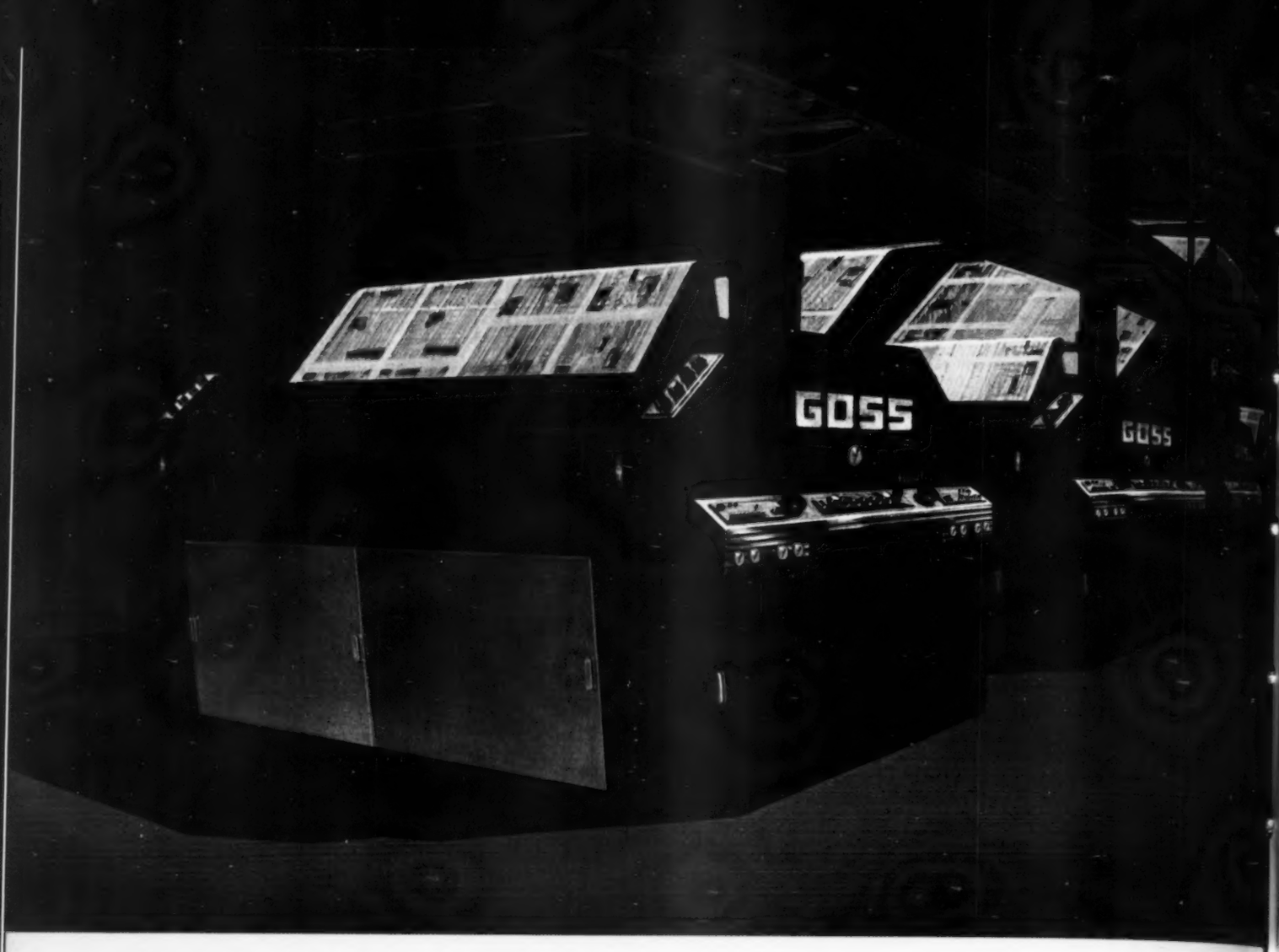

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Web offset problems were discussed by this panel at the PIA Web Offset Section meeting. Left to right: Thomas Taylor, McCall Corporation, Dayton, O.; Henry Lackner, Inland-Magill-Weinsheimer Corp., Chicago; Frank Petersen, Standard Publishing Co., Cincinnati; Michael Evans, Veritone Corporation, Chicago; John Wurst, Henry Wurst, Inc., Kansas City, Mo.; Joseph Gajdos, Western Printing & Litho Co., Poughkeepsie, N. Y., and Charles Cook, Haynes Lithographing Co., Rockville, Md.

Web Offset Problems

(Continued from Page 42)

less. If the roll starts to chatter, the press is shut off at the 2 in. diam. Also from experience, another person said he found that a greater core diameter such as 5 in., enabled running down to $\frac{1}{8}$ in.

The relationship of oven temperature to drying of ink on the sheet was also discussed. A panel member said: "We disregard the oven temperature. We are interested in the temperature of the web as it comes out of the oven. We have a two speed drier because the first heat that is delivered is from the direct flame burners; from there on the temperature of the web is maintained at a high enough level to drive off the ink vapor by heated air from both top and bottom of the web through drilled pipes. We use an instrument which is readily obtained to measure the surface temperature of the web."

The life of paper dampeners was believed to be generally two days round the clock. From the viewpoint of one speaker it was false economy if you had trouble not to substitute another one. He thought on the whole the paper dampener is doing a big job and if the dampener does not last longer than two days it is still worth it.

Another speaker said he tried one of the rubber rollers in the dampener mechanism and it does a good job for three or four days. He added, however, that if the press is permitted to set for awhile the ink will dry on the roller and it must be removed before the press is started again.

Particular Press Problems

At the Friday general session, Ben Offen, B. Offen & Co., presided. This was a panel presentation and discussion of results regarding a survey of technical and mechanical problems encountered in the operation of web offset equipment. Each of the five panel members presented a brief survey talk on some phase of web offset printing.

Herbert A. Asten, Cottrell Company, said he had sampled users of presses and found one of the biggest troubles is maintaining tension on a web offset press. "It takes a great deal more tension than on web letterpress. A great deal of efficiency can be lost if you do not have adequate loading facilities," he said.

"Wrap-arounds on web breaks has been a problem in the past but is a minor one now if adequate controls are put on," he said. "Folder jamups were still a problem, but when you get into the higher speed machine this has been corrected."

In speaking of rollers and blankets, Norman L. Rowe, Ideal Roller & Mfg. Co., said: "The roller compound can be incorrectly formulated and be too soft, and you get mushy dots and a possible shorter roller life.

"Another thing that can be wrong is insufficient chemical resistance to ink solvent and washup solvent," he said. "A formulation deficient in this respect will produce excessive tack which will make the rollers hard to clean and will cause an ink film to develop which can produce hickies.

"If a formulation is of insufficient chemical resistance the blanket or the roller can swell and this

(Continued on Page 90)

Panel members who discussed technical-mechanical problems in web offset were, left to right: Harvey E. Sweetland, St. Regis Paper Co.; Herbert A. Asten, Cottrell Company; Albert Materazzi, Litho Chemical & Supply Co., Inc.; Ben Offen, B. Offen & Co., chairman; Alvin W. Reitz, Interchemical Corporation, and Norman L. Rowe, Ideal Roller & Mfg. Co., Inc.

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PRINTING PRODUCTION'S

OVERSEAS' REPORT

By WILLIAM CRANE

Status of Today's European Printer

The printing industry of Europe today is in an upheaval. American printers see an indication of it in the quantity of imported printing machinery, and in the sometimes exceptional quality of printed material which finds its way into the United States. When printing plants and manufacturing facilities that were only bombed-out rubble 15 years ago can make such a noticeable impression on the U. S. economy, it is necessary to take a second look at the Graphic Arts industry overseas and study the reasons for this dramatic recovery.

Let's take "Hans Printer" (or Pierre, or Olaf, etc.) as an example. His hourly wage is less than half that of "Joe Printer" in the U. S., but still fairly good by local standards. He probably began his career as an apprentice at the age of 14 and spent his teen-age years both in the printing plant and the trade school. He can both recognize and produce quality work when he can get the price for it.

The printing equipment in his plant will usually be spotless and he will work in a clean smock, though the plant itself may be dark and dismal. The idea of running his press at capacity will shock him: Machines cost a lot of money and must be handled with care. Hans thinks his American counterparts have plants which are well equipped with electronic devices, and that American equipment is exceptionally g o o d but over-priced. Somewhat contemptuous of American printers when it comes to quality work, craftsmanship and training, he nevertheless admits that the U. S. has something when it comes to productivity, plant management and imaginative marketing.

"Hans Equipment Manufacturer" is much like his printer-brother, with one important added feature. He realizes that his future lies in producing new ideas and equipment for the world market. He will export or die, and his government knows it. For the time being "Joe Printer" has not realized the potential of export, with the exception of a few books and color work, but he is excited about the growth of the Common Market and the idea of a United States of Europe.

Briefly then, these are the differences which today exist between the average individual in the European-American Graphic Arts field.

Late last month, two chartered DC-7s crowded with 150 American printers took off from Idlewild Airport for a visit to Europe. How many others jammed regular air flights and ship sailings is difficult to estimate. What happened, however, is undoubtedly the biggest movement of American printers across an international boundary the industry has seen.

The focal point of their travel was the Salon TPG in Paris which was held from April 29 to May 8. This printing machinery exposition was but one in an annual series held in European countries. The Paris show, for example, was four times the size of the New York Coliseum Exposition last September. It became the biggest show window of Europe's printing industry. At this glittering exhibition "Joe Printer" and "Joe Equipment Maker" met Hans, Pierre and Olaf face-to-face. Would any reader like to comment on his impressions of this meeting?

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The Graphische Zentrum, a huge printing trades center in West Berlin, is now nearing completion with many of its floors being taken by printers, suppliers and manufacturers. If you visit West Berlin and see the Center, you may find something vaguely familiar about its arrangement. The architects and technicians who designed the layout spent several weeks in the United States studying the Indianapolis Printing Trades Center and similar groupings of Graphic Arts plants in other cities.

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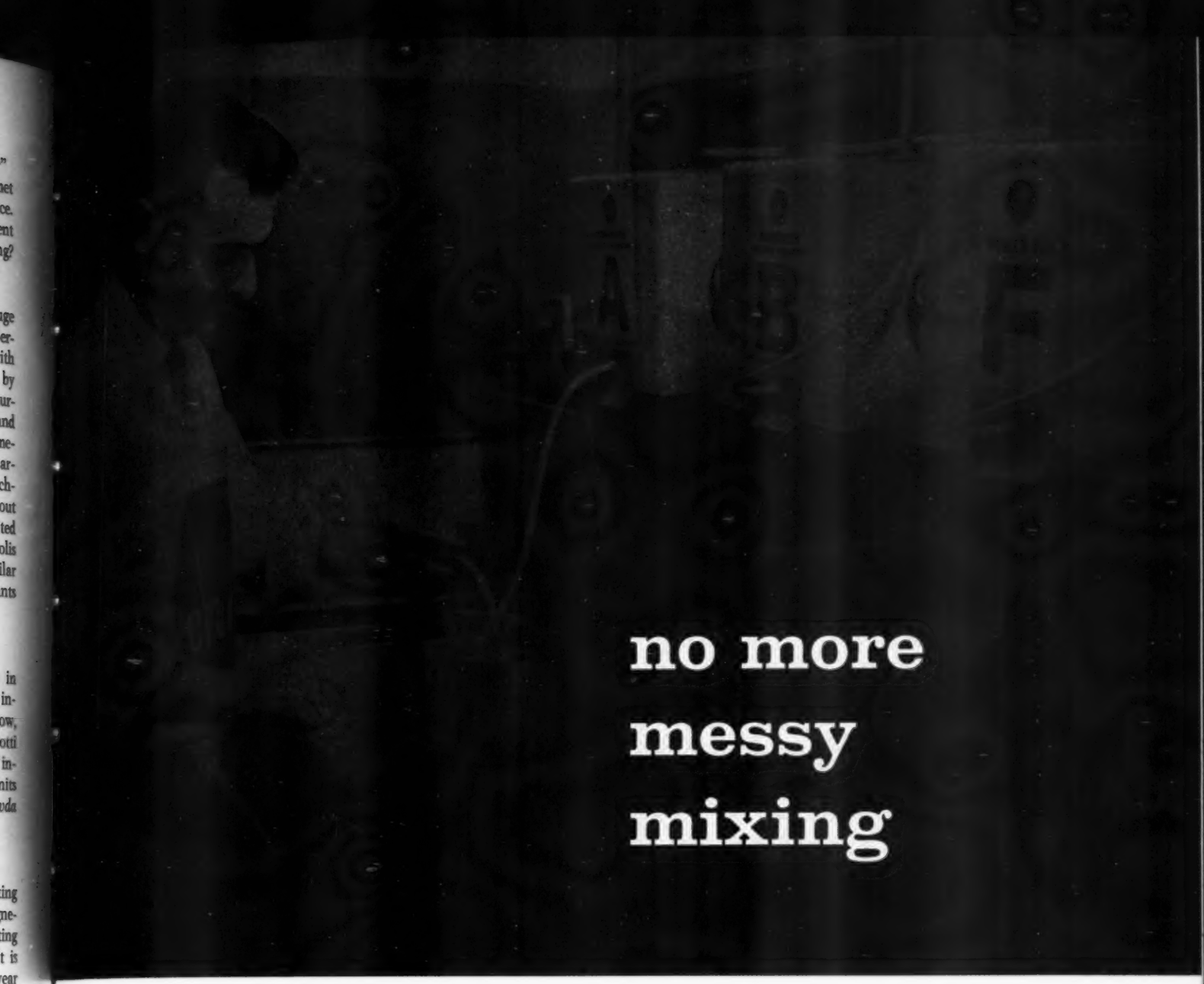
The largest rotogravure press in the world is currently being installed in—of all places—Moscow, Russia. Manufactured by Andreotti in Milan, Italy, the press will include 28 complete printing units and will be used to print the *Pravda* newspaper.

⊕ ⊕ ⊕

Dutch printers are experimenting with a new zinc-aluminum-magnesium alloy for use in slug casting machines and in stereotyping. It is said to be 100 times more wear resistant than the conventional lead-tin-antimony alloy, with a lower weight, and at half the cost. Modifications, though, must be made in the casting machines.

Atlanta Gets Ready for Craftsmen Convention—Circulars and other publicity devices for the 41st International Craftsmen's Convention, Aug. 7-10, Biltmore Hotel, Atlanta, are displayed by Henry Owens (center), ATF branch manager, Atlanta. Owens explains the nearly complete publicity plans to fellow ATF branch managers, who are, left to right: William P. Hourihan, Boston; Henry F. Krumm, St. Louis; Owens; T. K. Bransford, Dallas; Orson Udall, Los Angeles.



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RESEARCH

Activities in

PRINTING INDUSTRY

Bulkeley Re-elected President of LTF—William H. Bulkeley, Connecticut Printers, Inc., Hartford, Conn., has been re-elected president of Lithographic Technical Foundation. Other officers elected were: Felton Colwell, Colwell Press, Inc., Minneapolis, vice president; Herbert E. Brod, Lutz & Sheinkman, New York, treasurer, and Robert T. Wolff, Southwestern Div., Western Printing and Lithographing Co., St. Louis, re-elected secretary.

LTF Hears Research Reports — Those in charge of the various projects conducted by the Research Department of Lithographic Technical Foundation reported on progress in 1959 during a recent two day meeting in Chicago. Charles Gramlich reported that his staff has been experimenting with the development of a method of producing water-receptive surfaces on lithographic zinc without destroying its excellent ink receptive properties.

In addition, Gramlich reported that progress has been made in developing a deep etch coating to replace the gum arabic coating currently used.

George W. Jorgensen, who heads research on physics and print quality studies, reported that his staff has been involved in studying various print quality factors of the press sheet image and in developing a high speed scanner for measuring printing quality factors.

In another report, Jorgensen described work on the LTF Press Inkometer. He described the Inkometer as an instrument for determining the ink-water balance on a press. It helps pressmen set the ink-water balance while the press is idling during makeready and gives a continuous meter reading of the balance during the press run. According to Jorgensen, a test production run of 10 Inkometers is being made for testing on multicolor production presses.

In a report given by Frank Preucil, two differently shaped color diagram systems were described. The systems reportedly show some Graphic Arts color problems and variables more effectively and simply than previous systems.

LTF Approves Record 1960 Budget —The highest budget in the history of Lithographic Technical Foundation, $408,000, has been approved for 1960 by the board of directors, according to a report made at the recent Chicago meeting. In comparison, $362,000 was spent by LTF in 1959 and approximately $340,000 in 1958.

In addition, an appeal was made for an additional $100,000 for increasing the number of assistants in the research and educational departments and for expanding the technical field service staff. It was theorized that if these additional staff members could be hired, each dollar spent for research and education would be more productive.

View Production of Two Color Cartons—Carton manufacturers watch as two color bubble gum cartons are printed on a Heidelberg 21 in. by 28 in. press during a recent open house held by Heidelberg Eastern, Inc., in Chicago. Following the printing process, the cartons were die cut on the companion 22 in. by 28 in. Heidelberg cylinder cutter and creaser.

PIA Will Sponsor Equipment Show

Printing Industry of America has authorized the holding of an educational equipment show in connection with its annual convention. The decision to hold the show was based on the results of a survey of PIA members which indicated that such an undertaking would be a desirable feature of the convention program. PIA conventions are usually held during the fall months.

The PIA Board of Directors in announcing its decision, said the show can become a center for the dissemination of information which management can use in making future equipment decisions. Board members felt that the show could also provide information in answer to technical questions.

The Association said the show will be conducted in an atmosphere of privacy. The use of sound proof rooms for audio visual aids, sound presentations, and interview rooms would attract many representatives from top management, and key production levels, the survey disclosed.

Exhibitors will be encouraged to emphasize new developments in equipment and supplies. The show is intended to provide an opportunity to see new equipment in operation and to discuss its application to the individual companies.

The announcement also indicated that certain portions of the convention program would be directly related to various features of the equipment show.

For the first few days the show is to be confined to member companies who are registered for the convention. It will then be opened to the general public.

Complete management of the show is under the direction of A. E. Giegengack who has managed four Educational Graphic Arts Expositions. Management offices are to be located at 5728 Connecticut Ave. N.W., Washington 15, D. C.

First step procedures for both reverse and standard frisketing, as pictured here, are the same. An impression is made on the frisket paper which is then cut out where printing is desired.

A Comparison of Standard and Reverse Frisketing Methods

FRISKETS are necessary to prevent dead metal areas from printing when pulling proofs from flat plates which do not have these areas routed out.

Standard frisketing methods dictate that the plate be inked, frisket applied over the inked plate, and impression taken. Reverse frisketing methods require removal of the frisket prior to making the impression.

Some advantages in reverse frisketing can be seen in a step by step comparison of the two systems. The first steps in either reverse or standard frisketing are the same. The plate is inked, and the frisket paper is mounted in the frisket frame of the proof press.

Ink rollers are raised, impression is thrown on, and the cylinder is rolled over the form so that an impression is formed on the back of the frisket. The frisket is then removed from the press and is cut out in the usual manner.

It is at this point that differences between reverse and standard frisketing methods begin.

The second step in reverse frisketing is to wash the plate clean and to lay the frisket over the clean plate. The plate and frisket are both inked, the frisket protecting the dead metal areas from the ink. The impression is off and ink rollers are down.

Ink rollers and frisket frame are then raised and impression thrown on. The proof is pulled only from the plate itself without interference from the frisket. Because the frisket is not in place when proofs are pulled, press running conditions are more perfectly matched. In addition, there is no bear off due to the thickness of the frisket as there is when standard methods of frisketing are used.

Reverse frisketing procedures differ from standard frisket operations in that the frisket is placed over the plate and both are inked. The plate is inked prior to placing the frisket over the form in standard operations.

Among other advantages claimed for reverse frisketing is that there is little danger for the plate to bow when the edge clamps are tightened. There is said to be little distortion of the plate and better reproduction results because of the small underlay beneath halftones. Edge slurring is eliminated because the impression cylinder does not ride over the frisket. In addition, proofs are reported to be in better register and consequently a more accurate set of progressives result.

No frisket covers the plate when proofs are pulled in reverse frisketing procedures. Dead metal areas remain uninked.

A material such as glass beaded Spherekote is useful in reverse frisket work since the glass surface tends to reduce adhesion between ink and frisket paper. It also lessens excessive ink build up.

RIT Quality Control Seminar

The 10th annual Quality Control Seminar for the Graphic Industries will be held June 6-10 by Rochester Institute of Technology, Rochester, N. Y. The course is designed for buyers and producers and for production, management and sales executives from the fields of printing, lithography, paper converting, folding cartons, paper printing inks and publishing. Place of the seminar will be Rochester's Towne House.

METHODS ANALYSIS CHART

Operation Open Feeder Table Prepared by P. Doebler

Description -- Left Hand	Class of Motion	Time (T.M.U.)	Class of Motion	Description -- Right Hand
Reach to feeder table	(R16B)	12.9	R12B	Reach to lock wheel
Grasp feeder knob	(G1a)	1.7	G1a	Grasp lock wheel
(Both motions made		5.4	T90°	Turn lock wheel
while RH unscrews		1.7	RL1	Release lock wheel
lock wheel - time		5.4	T90°	Turn hand back
not charged.)		1.7	G1a	Grasp lock wheel
		5.4	T90°	Turn lock wheel
		4.9	M3A	Lift lock wheel to open latch
Move feeder table open	M10Bm10	8.9	(RL1)	Release lock wheel (while LH
Release feeder knob (hand	(RL1)	—		moves table open -- time
in motion -- time not charged)				not charged.)
Hand movement after release	R6E	8.0		
		56.0		
+15% Allowance		8.4		
Total T.M.U.		64.4		(Hundred-Thousandths of an Hour)

NOTE: This is a sample illustration only. Time values should not be applied in any specific plant.

Fig. 1—Typical MTM motion sequence analysis for a pressroom operation is prepared on special chart. Time values are expressed in T.M.U.'s—Time-Motion Units—which equal 0.00001 of an hr. Code symbols under Class of Motion describe precise motion. R12B, for instance, indicates a Type B Reach, 12 in. long. Such analyses help to determine if press preparation time is running too high. If it is indicated that the time is too high, a group conference approach is used to secure worker cooperation in eliminating the costly extra motions.

TIME Determines the Profits of Your Printing Plant

By COLLIER A. ELLIOTT and PAUL D. DOEBLER*

Misuse of stop watches has led to better system of measuring workers' motion. It works in printing, too!

SECOND OF A SERIES

MEASUREMENT of the total time consumed to produce a given job in the printing industry has always been—and probably will continue to be—the basis on which the printer charges for his work.

You have heard the statement by professionals: "All I have to sell is my time." This single daily happening becomes important to the non-professional as well because a large portion of the product he is selling was created, in a sense, by time.

The printer surely is aware of this because many of his cost factors are based upon how long it takes his workers to move production through his plant. His greatest dilemma is: Are my men taking too much time? The engineering world has found a way to determine this. It is known as work measurement.

Just what is work measurement? How does it help find cost-saving improvements in operations?

Work measurement is the process of finding out how much time it should take a man to do a given piece of work, when: (1) He works with average ability and skill, and, (2) He puts out the best effort he can without endangering his health or well-being over his lifetime.

The resulting time value is called the "standard" or "standard time" for doing the task. A standard represents a "fair day's work for a fair day's pay."

Unfortunately, the term standard has been used loosely in recent years. Some plants, for instance, average their production times and call this their standard times. Others select the best man and designate his time for doing the job as the standard.

Neither of these is a true standard—they are either average or selected levels of production. A standard is the time a job *should* take. It can be determined only by direct measurement of the work involved.

In earlier years all work measure-

*The authors are associated with the engineering firm of Collier Elliott and Associates, Garden City, N. Y.

ment was done with a stop watch. Engineers timed people as they worked, and then carefully processed this raw information to find the standard time.

Unfortunately, unscrupulous managers and so-called efficiency experts quickly grabbed the new techniques and horribly misused them, turning employees, unions, and many conscientious managers against work measurement. Although these exploiters have been pretty well eliminated today, their bad reputation still hangs on unjustly.

But in addition to the human factor, the stop watch also had other shortcomings. People have different skills and abilities and put out different amounts of effort when they work. Engineers had to judge these differences and adjust the raw times to get the actual standard. Even the best engineers found their judgment tended to drift from time to time.

Also, engineers could work out standards only for tasks actually being performed in the shop. They could not predict what might be expected from a proposed new operation.

Stop Watch Limitations

And finally, stop watches did not give enough detail for working out improvements in methods. Engineers, of course, knew that people used many different motions to do manual work, and they needed time values for the individual motions. However, a stop watch cannot be operated fast enough to measure these motions accurately.

Several systems were developed to solve these problems, but the best known and most widely used is Methods-Time Measurement, commonly called MTM. It came out of a truly massive research study made in 1940, in which 200 of the nation's leading time and motion engineers analyzed thousands of feet of slow motion movie film, frame by frame.

This work resulted in tables from which an MTM engineer may work to analyze any conceivable piece of work—objectively, completely, before one cent is invested in installing it in the plant.

The MTM system goes back to fundamentals: (1) The basic motions the human body can make. (2) The time it takes to make these motions when a man works with average ability and skill at the best effort level.

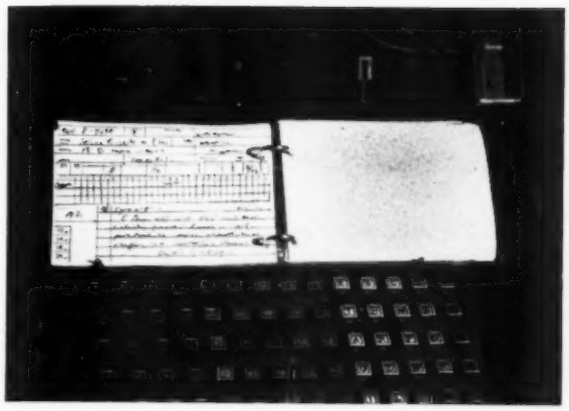

Fig. 2—Special copy holder designed by newspaper to enable typesetters to use best motion pattern when turning pages of copy. Best motion pattern is that of turning pages of a book. Holder has two-ring looseleaf binder mounted on acetate backing. Copy is clipped into looseleaf rings.

The 1940 study found that a person can make only so many different motions because of the way the human body is built. Motions can be linked into endless patterns, but the individual motions are basic.

The MTM tables classify and describe these basic body motions, and state the time each one takes. MTM time values are true standard times. They were put through exhaustive evaluations to adjust them for skill, ability and effort. Today's MTM engineer uses this basic data as building blocks, linking basic motions together to construct the motion pattern for any desired piece of work.

Analyzing Press Operations

How can this help you in your plant? Well, suppose you have a problem on your Miehle Vertical presses and your competitor is able to offer lower prices on Vertical work. You've checked, and you run your presses as fast and as well as he does—when they are running. The trouble must be in preparation and makeready time, so you put an MTM engineer to work.

First he charts the work methods your pressmen must use by outlining the necessary motion patterns. Note the word "necessary." Your engineer will omit any motions not absolutely necessary to the work, although your pressmen may indulge in making them.

The engineer breaks the job of operating a Vertical down into small pieces, such as Start Press, Open Feeder Table, Open Packing, Set Ink Keys, Once Across Fountain. He may wind up with 50 or more of these.

He then lists the motions required to perform each piece of work, and adds up the time values to get a total standard time for the task. An additional time allowance is added to this total (usually 15%) to compensate the pressman for inevitable delays in his work, his personal needs, and the effects of fatigue through the shift. Fig. 1 illustrates a typical MTM motion sequence description for the task Open Feeder Table. (The time values shown, however, should not be applied in any specific plant.)

Next your engineer determines how often the pressman must perform these work elements during the course of his work. Open Feeder Table, for instance, would occur in a number of places—while setting up the form and preparing packing, several times during makeready, and at the end of the run. Individual element times are multiplied by the number of occurrences, and the results are added together to produce a total standard time for doing the entire job.

(This brings out another important characteristic of standards: They are applicable only to the operation they were prepared for. Standard time depends on the motions used, and these will vary greatly from one plant to another, even on the same equipment.)

Now your engineer is ready to draw conclusions. Comparing actual job cost records against computed standard times, he finds that press preparation time is running too high.

Locating the Trouble Spots

Into the plant he goes, to watch the pressmen work—not with stop watch in hand, but easily and casually. He knows the exact motion patterns that the standard time represents, and he quickly spots where your pressmen are using extra, more costly motions. He huddles with the foreman and together they figure the best way

PRESS OPERATION RATING SHEET

Miehle Vertical

Press No. 2 Pressman Jones Date 4/13 Shift Day

		Minutes
1. No. of jobs handled	2 x 1.478 =	3.0
2. No. of forms made ready		
Loose register	1 x19.403 =	19.4
Close register	1 x30.734 =	30.7
3. No. of 1000 impressions	24.9 x15.000 =	373.5
4. Daily set-up and clean-up allowance		7.3
5. No. of extra colors run (other than first at start of shift)	0 x 4.321 =	—
Total Standard Minutes		433.9
+ Total Minutes Worked		450.0
= PERCENT OF STANDARD		96.4%

NOTE: Time values shown here are samples only. They should not be used in any existing plant.

Fig. 3—Work sheet for calculating standard time for production on a Miehle Vertical press. Clerk counts number of each element, multiplies by appropriate time value, and enters result in column at right. Arithmetic at bottom is performed to get a rating of how well press was handled. 100% of standard would be a perfect job.

to eliminate the extra motions.

Let's see how just a couple of these troubles might be located and corrected.

The engineer notes that Vertical pressmen take far more than the standard time to set the ink fountain at the start of a job. They don't turn the keys enough each time they make an adjustment, especially at the beginning, and they have to make many extra motions.

The foreman is able to shed some light on why this is: All of these men are young, and were trained by an old timer who retired last year. This fellow was overly finicky in setting up a press and undoubtedly passed many of his costly habits on to the younger men.

The foreman and the engineer agree some retraining would be desirable. The foreman suggests that maybe they can use a man who works on the big presses to demonstrate the best method. He's the top craftsman in the shop and is pretty fast at setting a fountain. The men will take it better if it comes from someone like him. The engineer checks this pressman's procedure and time. They are very close to the standard.

A meeting is arranged in which the foreman and skilled pressman do the talking and demonstrating, using illustrative material prepared by the engineer. The following week, time for setting ink fountains drops considerably.

Loading Paper on Press

Another problem your engineer notes is in loading paper on press feeder tables. Pressmen put an excessive amount of time into riffling and jogging sheets before placing them on the table. The engineer asks why.

"Got to," says one man. "See these nicks on the sides of the pile? The sheets sometimes stick together where these nicks are, and they won't feed right if we don't separate 'em. And look at the way this paper is stacked when we get it—every which way."

The engineer checks out the stock room. He finds a much neglected department. High school boys work part time here, with no regular foreman over them. The pressroom foreman doesn't have time to supervise them properly.

The boys throw paper around carelessly, smashing the edges of stacks against sharp corners. The cutter has a badly dulled, burred blade. It is used to cut many things that never should be cut on it. Also, the accountant periodically bears down on maintenance costs, and the first thing the shop postpones is sharpening cutter blades.

The engineer calculates the time lost riffling paper at the presses compared to the cost of operating the stock room properly with a full time man rather than part time help. He finds that a full time operation would result in a net saving of over $1000 in press time.

This investigation pays an added dividend, too. While in the stock room, your engineer notes that cut stock is stacked on racks in a random manner. Pressmen must restack it on feeder tables.

If the cutter operator stacked paper on individual boards that would fit press feeder tables, pressmen could load their presses in seconds rather than minutes. One entire handling would be saved. The engineer prepares instructions for the cutter operator on how to stack paper for the presses, and helps train the operator.

Are these examples realistic? Can a few extra motions really make that much difference? The answer is definitely in the affirmative.

Consider the case of the newspaper that investigated copy handling by straight matter operators at their machines.

Procedure with a conventional copy holder is familiar: Reach to the holder, open clamp, take out copy, release clamp, unfold and turn and refold pages, insert them under clamp, position clamp, return hands to keyboard.

Designs Own Copy Holder

The simplest way to turn pages, however, is as though they were in a book: Reach to the page, grasp it, turn it over, release it, and return hand to keyboard. This newspaper has developed a special copy holder, shown in Fig. 2, that permits use of this simple motion pattern. This particular newspaper has figured its time saving on classified copy alone is worth $3400 a year.

Finding improvements in operations isn't the only thing work measurement can do for you. Once you've made improvements, you have to hold onto them; any operation tends to backslide after the initial push. The same standards that led you to the improvements can be used to monitor the new operation.

For this your engineer prepares a

(*Continued on Page 92*)

"Automatic strapping machine speeds-up tying operations 24%"

says Mr. Richard H. Gillespie, Circulation Manager, Stamford Advocate, *Stamford, Connecticut*

"We can handle 21 bundles a minute with our new USS Steel Strapping Machine," says Mr. Gillespie. "The best we could manage before was only 16 bundles a minute. This means that we're now able to hit the streets with our editions in 55 minutes. And, we've saved twice the lease cost of the machine, in labor costs.

"We use the Model 1250, with a 33" diameter and 18 gauge wire . . . gives us plenty of binding strength and a uniform tie. There's no doubt in our minds about the value of this machine. We've increased plant efficiency, saved money and completely eliminated operational bottlenecks."

Free Technical Assistance. Our Strapping Specialists are available to help you work out troublesome bundling or packaging problems. For details, fill in the coupon. *USS is a registered trademark*

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Complete Strapping Service • **Strapping** • **Tools** • **Technical Assistance**

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Please send me a free copy of your Sweet's Catalog Insert, and have a Strapping Specialist call.

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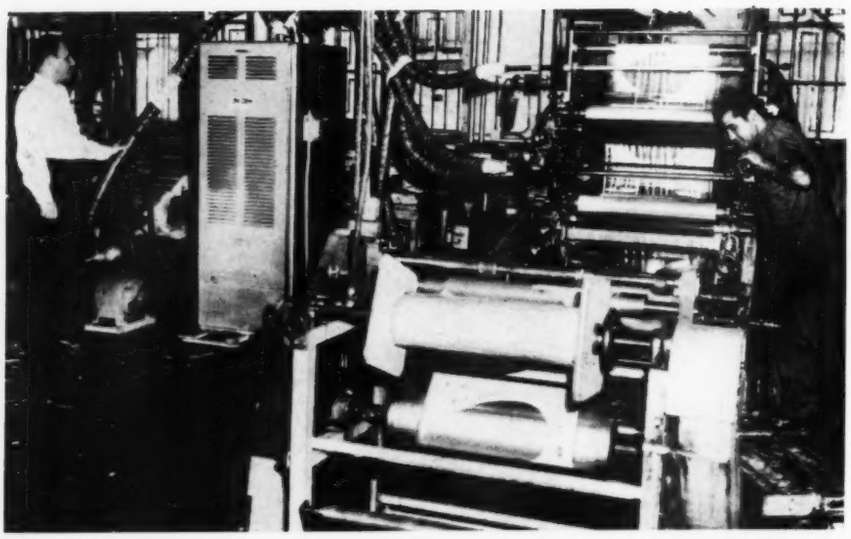
For More Information Circle 70 on Reader Service Card



Colorpak, Inc., Brooklyn, N. Y. has adapted a forced air heating system to dry printing inks on flexible packaging materials. Burner operates on same principle as jet airplane engine.

Adapts Heating System to Ink Drying

Adaptation of a forced air home heating system to drying of printing inks on flexible packaging materials has been accomplished by Colorpak, Inc., Brooklyn, N. Y. The drying equipment has increased production considerably.

The Jet-Heet furnace develops a positive pressure in the combustion space, permitting it to be installed without a chimney. A simple vent pipe can be substituted. The burner operates on the same principle as the jet airplane engine, to deliver high temperature gaseous products to narrow passages in a high velocity heat exchange. It is reported to be quiet and fast in operation.

Leo Di Napoli, manager for Colorpak, made the furnace adaptation to his firm's printing process.

The warm air furnace, which features small flexible ducting (2 in. i.d.), is powered by gas in the Colorpak installation, although, it can be oil-powered as well.

Di Napoli fashioned four 1 in. tubes which he attached in horizontal position to the press. The tubes (into which heated air jet holes were drilled) were connected to the furnace by flexible ducting. The hot air supplied to the stock dries the first printing quickly. The final printing is glossy and without bleeding of inks. Colorpak further adapted this unit to its interphase and final drying operation in two machines simultaneously.

By keeping the Jet-Heet furnace on at night a quick start of the press in the morning during cold weather is provided.

Colorpak installed a 100,000 B.t.u. Jet-Heet furnace set to operate at 350 deg. F. Where varying temperatures are required the temperature can be adjusted to suit specific needs.

Dailies Spent More On Plants in 1959

Daily newspapers spent approximately $97.5 million for plant expansion and modernization in 1959, according to a survey of 876 daily newspapers taken by the American Newspaper Publishers Assn. This amount was an increase over the estimated $75.2 million spent in 1958, but remained below the peak of $129.9 million spent in 1957.

The survey also showed that 19 Canadian dailies spent $8.5 million for capital outlay in 1959. It was also estimated in the report that expenditures in 1960 would amount to $92.7 for U. S. dailies and to $6.6 for their Canadian neighbors.

In previous surveys, it was found that U. S. dailies spent $40.6 million for expansion and improvement in 1953 and in 1954.

Drawing from these figures, Cranston Williams, ANPA general manager, concluded that a growth of daily newspapers is indicated and that newspaper publishers are "faced with an absolute necessity to eliminate obsolescent but expensive equipment, and substitute the most modern production facilities available in the interest of efficiency."

WHAT'S AHEAD FOR THE READER

An inside look at the only organization of its kind in the world devoted to the improvement of newspaper production will be featured in the June issue. It will be the story of the newly-organized ANPA Research Institute, and the writer will also show that newspapers today are not getting maximum results from the tools and methods available to them.

Printing Production's broadened editorial coverage to include developments in printing in other parts of the world will be evident in two June issue stories. One is on the interesting equipment shown this month at a Graphic Arts exposition held in Paris; the other on how newspaper color printing is being handled in Germany.

Miami, scene of next month's important ANPA Mechanical Conference, becomes the subject of stories on the city's two leading newspapers. Composing room lighting is featured in one article; the features of a new newspaper plant now under construction in another.

The informative current series on how to apply standards in printing operations will be concluded next month. The authors will show how such standards can be used to evaluate workers, work load scheduling and control, and other applications. Another series, on production scheduling, will concentrate on the specialty printing plant.

Don't forget to look for the regular features: the Idea File, news of the industry, patent reports, new equipment on the market, and others. The June issue will be an important one to you and everyone in your plant.

Bergen Evening Record

AGAIN adds SCOTT press units

Circulation
over 100,000
Printed on
14 SCOTT Units
at over
30,000 PPH

By permission...we print the following excerpt of a letter from Donald G. Borg, publisher of the Bergen Evening Record—

". . . I spent more than a year investigating the principal press suppliers and their products before choosing SCOTT. Since that decision 10 years ago I haven't changed my mind. Our original order in 1949 was for six units and a folder, increased by two more units and another folder the next year. In 1956 we installed four additional units, and we are now adding another two. Our present press run is in excess of 100,000 and our papers averaged 50½ pages last year. Our SCOTT (with automatic pasters) dependably put into the Mail Room better than 30,000 papers an hour. I'm still sold, and so are our pressmen."

This endorsement of SCOTT Pressroom and Reelroom equipment is typical of newspaper approval from coast to coast. If your plant facilities are overtaxed, by all means let a SCOTT engineer show you how modern high speed press units and 3/2 Folders have increased production and cut operating costs for these plants.

Send for literature.

SCOTT presses

WALTER SCOTT & CO.

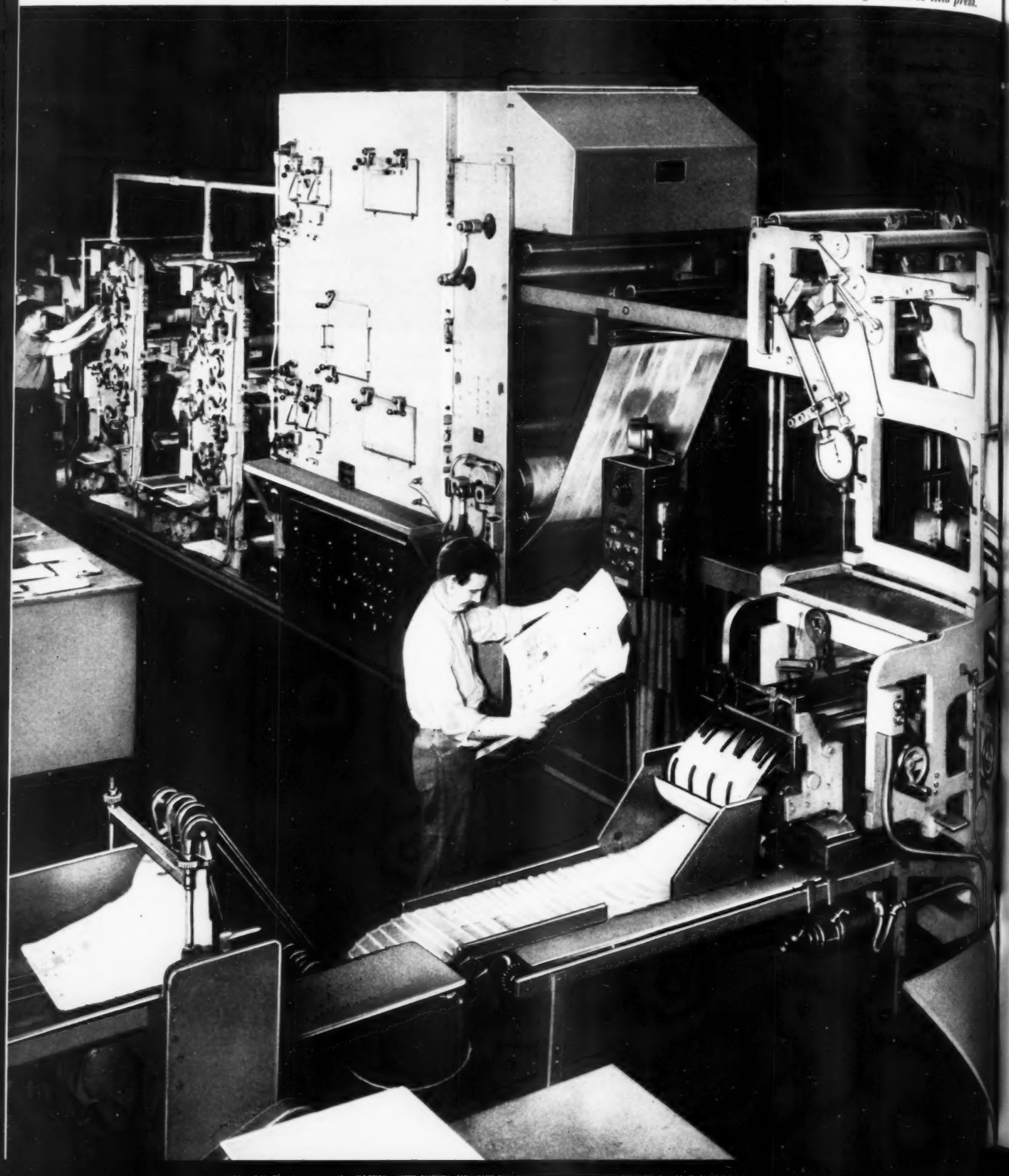
DIVISION OF WOOD NEWSPAPER MACHINERY CORPORATION Plant: Plainfield, N.J.
EXECUTIVE & SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17, NEW YORK

BUILDERS OF PRESSROOM AND REELROOM MACHINERY AND EQUIPMENT SINCE 1875

For More Information Circle 156 on Reader Service Card

Danner Press of Canton

This is the new 22¾ x 35" ATF Press at Danner. Two printing units and a second high-speed folder are being added to this press.



speeds production with ATF Web Offset Publication Presses

Millions of copies of periodicals are printed, bound, addressed and mailed every month by this 275-man Ohio plant. All their presses are web-fed. At key spots in the Danner operation are two 22¾ x 35" *ATF Offset Publication Presses.*

The older of the two— a four-unit web-fed press—was purchased in 1948; and, according to Danner, "it is the real workhorse of our plant." This ATF press has unusual versatility. It has an ATF magazine folder at each end of the press and each printing unit can be fed with a roll of paper from the side. A roll can thus be run through just one printing unit, or two, three or four as per number of colors required, or additional rolls can be run to increase the number of signature pages.

A new two-unit 22¾ x 35" ATF Publication Press was installed in January 1959. It handles most jobs at a net production of 18,000 signatures per hour; however, Charles Cheviron, Pressroom Superintendent, reports: "It runs very satisfactorily at higher speeds, too." This press is equipped with ATF's new High-Speed Folder and a packer which speeds the handling of the printed and folded product.

These ATF Presses are helping Danner print several dozen magazines, catalogs, children's books, booklets and many other types of work. An indication of the volume: an employee of the post office is stationed permanently at the plant to process mailings, and two carloads of paper are unloaded daily at their siding.

Find out how ATF Publication Presses can help you boost your volume of production—and profits. Write for illustrated brochure.

ATF

AMERICAN TYPE FOUNDERS

200 Elmora Avenue, Elizabeth, N. J.

For More Information Circle 10 on Reader Service Card

Make Idle Presses Pay Off—Later

A recent bulletin from the New York Employing Printers Assn., Lithographic Div., suggested that printers use slow business periods to advantage.

Small but aggravating items which need attention tend to slow production for the printer in his busy periods. A stagnant business situation provides time to insure that lost production of this nature will not recur.

By putting one or several men on an idle press and having them work through the following check list, higher production and less frustration may result.

It was also suggested that a maintenance log book be kept by pressmen in order to note small items which need attention. During the course of a run, many pressmen discover things which are not serious enough to shut down the press. When a press is down for a short time, however, many of these small details can be corrected by consulting the log book.

Here's a list of reference items to enter in the log book:

1. Ink fountain keys, blade, roller, agitator, ratchets.
2. Ductor roller surface, spindles, actuator.
3. All vibrator roller surfaces, gears, vibrating mechanisms.
4. All composition roller surfaces, spindles, bearings.
5. Form roller surfaces, adjusting devices, settings.
6. Cylinder bodies, gears, bearings, bearers, back lash.
7. Plate clamps, screws, wrenches, adjusting devices.
8. Blanket reels, bars, pawls, ratchets, bearings.
9. All grippers, timing, cam followers, bearings.
10. Chains, sprockets, adjustments, spiders.
11. Pile elevating devices, automatic leveling.
12. Sheet guiding system, side guide, front guide.
13. Insertion system, swing mechanism, feed rolls, tumblers.
14. Feeder, suckers, forwarding wheels, adjustments.
15. Automatic oiling system, other lubricating equipment.
16. Pumps, hoses, valves, strainers, nozzles.
17. Pressure adjustments and throw off mechanisms.
18. All press tools, spare parts, press guards.
19. Entire dampening system, rollers, pan, drive.
20. Blankets, clean, soak and patch.
21. Pressman's station, cabinets, drawers, platforms.
22. Equipment, cans, sponges, lighting, supplies.

Six Color Wax Paper Insert

More than 350 miles of a six color Freshrap waxed paper ad were inserted in city and suburban editions of the Chicago *Tribune*, April 24. The advertisement was preprinted, wall paper style, on the waxed paper. It was mechanically inserted by the high speed press during the regular edition runs of the metropolitan newspaper.

Wrap-around Plate Talk Error

The report in PRINTING PRODUCTION's April issue (page 52) of Spilman B. Gibbs' talk before the Northwest Newspaper Mechanical Conference was incorrect.

Gibbs, spokesman for Imperial Type Metal Co.'s wrap-around printing plate program, was referring, at the Northwest Conference, to his company's work on zinc wrap-around plates, not magnesium plates as PRINTING PRODUCTION reported.

Gibbs said the thinnest zinc wrap-around plate produced by Imperial is 0.025 in. and the present size is limited to 30 in. by 96 in.

New Headliner Press Introduced by Goss

A new newspaper press, the Headliner Mark II, has been designed by Goss Company, Div. of Miehle-Goss-Dexter, Inc. Among the features of the press are centralized controls, unit size and shape which reportedly increase working space and fully enclosed units which allow access to all working parts.

According to the manufacturer, fast color change and quick cleaning without the use of solvents is made possible by the Sweep-Thru fountain on the Mark II. Roller settings on the new press are controlled by semi-automatic sockets which may be unlocked and adjusted so that the rollers can be reset to a predetermined flat. The ink feed roller is self cleaning.

It is claimed that a balanced press drive permits only minimum backlash for improved color register. A safety clutch is provided for overload protection and silencing of each unit and folder. Reportedly, silencing or reversing of either printing couple on the units, independently, is accomplished without use of tools.

Other features include: Goss' 3:2 folder, tension lockup, Colortrol and a reel tension paster system.

It is reported that the first Mark II press has been purchased by the San Diego (Calif.) *Union* and *Tribune* and that the Miami *Herald* has ordered a 63 unit press with seven 3:2 folders. Circle No. 274 on Reader Service Card.

Goss Company has introduced a new press, the Mark II, for newspaper production. The press features a Sweep-Thru fountain for fast color change, Colortrol, Goss' 3:2 folder and tension lockup.

For More Information Circle 96 on Reader Service Card→

LOOK TO THIS LABEL FOR

WITH

Now you can offer top-quality letterpress color printing with a minimum ink inventory! Speed King's 18 popular colors and black are all you need for nine out of ten jobs, yet they intermix perfectly when the customer demands a special color. Your nearest IPI branch has Speed King in handy 1 and 5 lb. cans . . . ready to do your presses proud!

IPI, IC and Speed King are trademarks of Interchemical Corporation

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CORPORATION DIVISION

EXECUTIVE OFFICES: 67 WEST 44th STREET, NEW YORK 36, N. Y.

Weekly Still Expands Though Circulation is 93% of Town

By W. E. KUENEMAN, *Midwest Editor*, PRINTING PRODUCTION

YOU are a young man who has become the publisher of a weekly newspaper because you have worked your way up the ladder since childhood. Now, your father is tired after a lifetime at open platen presses, a drum cylinder newspaper press, and a sometimes balky typesetting machine.

You've got to start making it on your own.

Your circulation statement shows that 914 people out of 979 population of Rockford, Ia., are subscribers to the *Register*. So you know there isn't much room for expansion there. Advertising, both local and national, is limited so it's generally eight pages a week; sometimes a special promotion or town event will boost it to 10, 12, or even 16 pages, but most of the time it's just eight pages.

There must be some room for development and expansion. That was the problem for Charles H. Houdek in 1954 when he became publisher. His father, Earle H. Houdek, had decided that it was time to step down. "It was the first part of 1954 when Dad and I had a talk over dinner one evening. We decided that in a town of 1000 people, advertising revenues were limited and commercial printing was the star to shoot for."

Earle H. Houdek and his son, Publisher Charles H. Houdek, look over a job on their Heidelberg press. Addition of automatic machinery and sales work has boosted the commercial printing volume of the Rockford, (Ia.) *Register* 425% in six years.

How well has that worked out? In little more than six years the commercial printing department volume has increased 425%—from $2000 in 1953 to $10,500 in 1959.

Eventually—Production Problems

"We looked around town and saw there was a lot of printing we were not doing," said Houdek. "It was surprising how much work we picked up simply by asking for it. In 1954, our volume was over $2700. Then we ran into production problems.

"The old press simply wouldn't handle a job of large flyers so a Miehle press was our first purchase. In 1955, we moved our volume up again which enabled us, in 1956, to purchase a 10 in. by 15 in. Heidelberg platen press. We advertised it widely and the commercial printing cash register rang up $5500 for the year. We kept adding type faces which our customers liked. A power paper cutter, better furniture for more accurate lockup, and a good Kelly B automatic cylinder press were secured.

"It was then we made a remarkable discovery," the publisher continued. "A large buyer of printing in a nearby city dropped in our office. 'I'm tired of standing in line as a customer of a big shop,' he said. 'I'd like to buy my printing where I can get some service.' We were happy to try out his plan and we found we could give him the kind of service he wanted."

Business firms in the town of Rockford provide the major portion of the *Register's* sales. "We never tell a customer when he can have a job," said Houdek, "we ask him when he needs it. Then we try to get it out right on time. Good service far outweighs price factors."

The *Register* has no sustaining publications, house organs or regular monthly or bi-monthly publications. They do a multitude of small jobs, approximately 500 per year.

As a further service to customers, Houdek also handles orders for spot carbon and register forms which he farms out. If the plant cannot handle a job, Houdek takes it to a nearby trade plant.

"Publishing a weekly newspaper is a three or four day job," Houdek added, "and the bulk of our job work is done on the weekend. The addition of two automatic presses makes possible handling of commercial work without interfering with newspaper production.

"During these past six years commercial printing has furnished the funds for modernizing our shop," he continued. "Our next step will be into the offset field. If we keep modern, we have no fear of the future."

And what does Earle (Dad) Houdek think of all this? He thinks it is just great. You see, he is spending some of that commercial printing money on a vacation in California.

Numbering Heads Cleaned Via Sound Wave Vibrations

A method of cleaning numbering heads through the use of high frequency sound waves has been developed by National Ultrasonic Corp.

According to the sponsor, the sound waves produce vibrations which, when introduced into a liquid, result in a phenomenon called cavitation. (Cavitation is the continuous rapid formation and sudden collapse of microscopic bubbles in a liquid.) The action which takes place resembles mechanical scrubbing and is said to pull foreign material free from numbering heads and their component parts.

Equipment required for the process consists of a generator and a cleaning tank equipped with transducers. The transducers function to convert the electrical energy produced by the generator into ultrasonic vibrations. These vibrations are then transmitted through the liquid in the cleaning tank to provide the cleaning action.

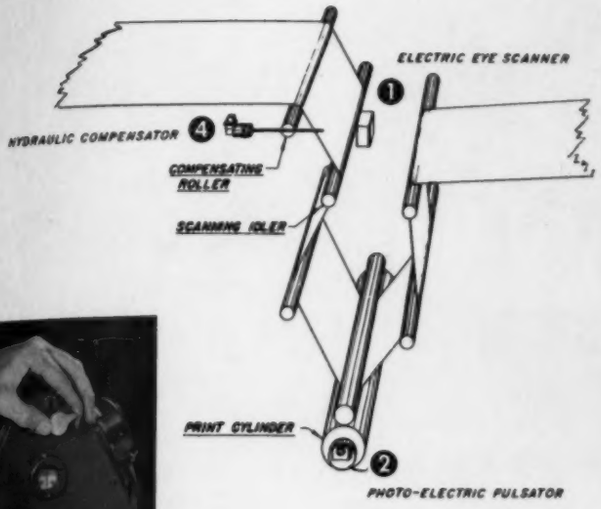
The drying cycle may be eliminated through the use of a special solvent. It is claimed that 30 numbering heads may be cleaned in from 40 to 50 min. by this process.

For More Information Circle 56 on Reader Service Card→

ELECTRIC EYE
scores another *first* in *Creative Engineering*

Greater profits through *less waste* and *better work*

New—and different—CIRCUMFERENTIAL REGISTER CONTROL, the HURLETRON Model 179J, gives constant register within plus or minus .003" under normal running conditions for . . .



- **Rotogravure Printing**
- **Newspaper ROP Color Printing**
- **Multi-Color Letterpress Printing**
- **Web-Fed Offset Printing**

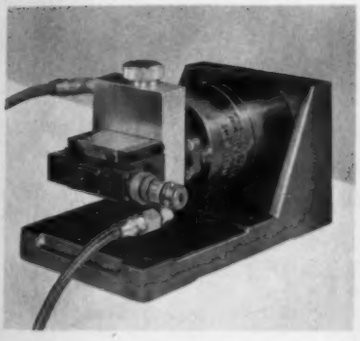
and

- **Back-Up, Cut-Off, Sheeting, and Cutting-and-Creasing**

A Photo-Electric Pulsator (2), coupled to each cylinder for which control is desired, has direct-reading dial which is easily adjusted by hand in the initial registering-in.

Each **HURLETRON** Model 179J has five components:

1. *Electric Eye Scanner* to watch the printed web mark and send a target signal to amplifier;
2. *Photo-Electric Pulsator* to report position of the print cylinder in reference to the approaching web mark by sending a reference signal to amplifier;
3. *Electronic Comparator* to compare Scanner and Pulsator signals. When both signals arrive simultaneously, register is correct. When target signal precedes or follows reference signal, register is incorrect and the Hydraulic Compensator is instantly actuated;
4. *Hydraulic Compensator* to control the compensating mechanism and, if register is incorrect, to initiate and continue corrective action in the proper direction (as dictated by the Comparator) until correct register is restored;
5. *Master Control Panel* to provide the focal point for setting up operational control of each complete HURLETRON unit.



The Hydraulic Compensator (4) consists of a hydraulic motor with oil flow controlled by a very precise electro-hydraulic servovalve. Power is supplied by a remotely located hydraulic motor. This servovalve-hydraulic motor combination provides a compensator with *instant reaction* and *continuous control*. Furthermore, this control is *proportional* since oil flow rate is *in proportion* to the differential current input signal coming from the Comparator in amplitudes varying with the degree of error detected. This new control has no "speed consciousness" and no variation in tolerances because of variations in speed . . . register is maintained at slow speeds, fast speeds, during speedups and slowdowns, and at splices.

Operator's controlling unit consists of Master Control Panel (5) equipped with modular transistorized circuits. Small, easily replaced "modules" shorten press stoppages, offer greater efficiency.

ELECTRIC EYE EQUIPMENT COMPANY

DANVILLE, ILLINOIS

Also manufacturers of these Hurletron products: DC Press Drives, Web Center Line Guides, Central Press Control Consoles, Automatic Caliper and Weight Controls, Moisture Controls, and Inspection Machines for the film, paper, printing and other industries.

CP 70-601 29.4M/19

THAT IS...

TRULY *Proportional...* The compensator runs at speeds *proportional to the degree of error.*

TRULY *Constant...* Corrective reaction to error is initiated instantaneously *as soon as the error occurs.*

TRULY *Modular...* A complete circuit can be removed and *replaced in a matter of seconds.*

TRULY *Transistorized...* No bulky tubes, less maintenance, more efficiency.

YOUR REGISTER PROBLEMS WILL PRACTICALLY DISAPPEAR WITH THIS NEW HURLETRON MODEL 179J!

Ask about our COMPLETE PACKAGE PLAN—engineering, fabrication, installation instructions, service checking and adjustments, and training program for your operators.

HURLETRON

HURLETRON

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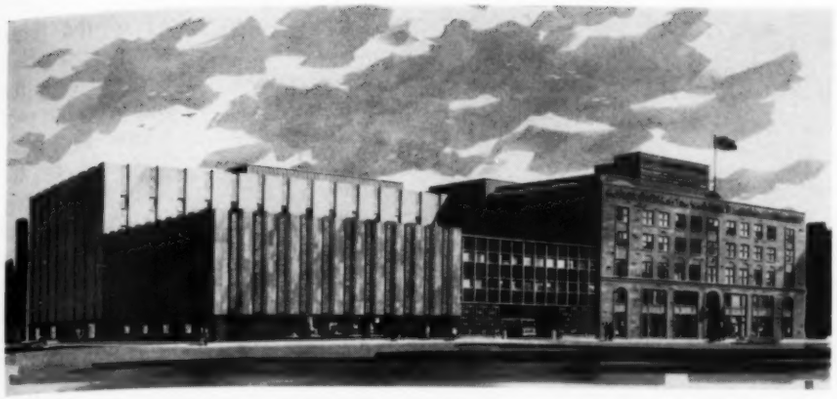
ELECTRIC EYE EQUIPMENT COMPANY

DANVILLE, ILLINOIS



Architect's sketch of addition to Milwaukee *Journal*. Total expenditure exceeds $11.5 million.

Milwaukee Journal Spends $11.5 Million To Expand Plant

The Milwaukee *Journal* has announced plans for construction of a building addition and new equipment which will cost in excess of $11.5 million. The addition will more than double the present space of 191,000 sq. ft.

Donald B. Abert, vice president and general manager, Journal Company, said the building addition will cost $5,755,000 and new equipment to be added will total $5,770,000. The new addition will contain 221,000 sq. ft. and 2,926,000 cu. ft.

Abert also said the new building and its equipment are expected to be in use before the end of 1961 and have been in the planning stage for five years. Construction of the 170 ft. by 200 ft. structure is to take place in three phases: The first includes excavation, pile driving, and construction of the basement slab. The second phase consists of the actual construction of the addition. The third phase will include the remodeling of the present structure to match the addition. Architects for the program are the firms of Eschweiler & Eschweiler, and Pereira & Associates.

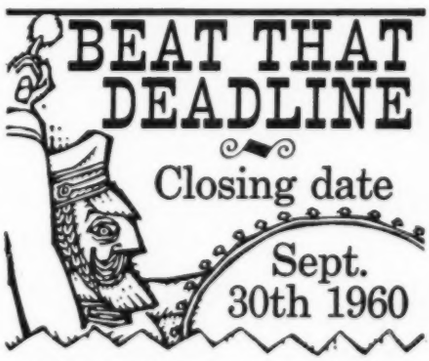
New equipment to be added consists of two eight unit presses with color decks for ROP color. Other equipment additions are scheduled for the mailroom, composing room, stereotype, paper and ink storage areas, engraving, loading dock, etc.

Connections between the buildings will be provided on all levels except for the ground floor which will contain a truck court through the center of the combined structures. All alleyways will be retained.

Carnegie Tech Summer School

The School of Printing Management, Carnegie Institute of Technology has announced plans for summer courses running from June 27 to Aug. 7. Directing the six-week session will be Prof. Kenneth R. Burchard, assistant dean of the school.

Fees will be decided on an individual basis, and applicants will be accepted without regard to previous education, training or experience. It is reported that courses will be offered in planning, design, estimating, cost accounting, sales and management. Classes will also be scheduled in skill areas such as typography, machine composition, presswork and photolithography. For information, write: Director of Summer Sessions, Carnegie Institute of Technology, Pittsburgh 13, Pa.



Start planning your entries now for the P.I.A. Self-Advertising Contest. Win a "Benny" and a $1000 cash award!

Write for rules and entry blanks!
PRINTING INDUSTRY OF AMERICA, INC.
5728 Connecticut Ave., N. W.
Washington 15, D. C.

Wrap-Around Printing

(Continued from Page 32)

Intertype Corp. on dry offset printing. We had reached a level of quality that was shy of the goal we had set and above which we seemed unable to go. A series of discussions resulted in our cooperative venture into direct printing wrap-around letterpress on a 35 in. by 45 in. converted Harris offset press.

It was realized that precise inking was mandatory as the depth of etch could only be the result of a compromise between plate flexibility and its resistance to deformation in the etched areas. This coupled to the problem of possible first deck ink set-off on the bottom of the second color plate gave us some neat limits in which to work. We chose the commensurate, or "ghosting in register," approach to inking and have been pleased with the results.

Search for Materials

This makes easy writing now, but the constant adjustments and the incessant search for combinations of materials and conditions was at times almost overpowering. There was no photoengraver's metal in the 40 in. by 48 in. size, so we had to use aircraft alloy. Inks were hybrid between letterpress and offset, and we are still learning about them. Printing length, inking pressures and need for underlaying each had to be dealt with and solved.

Our press is now a direct printing wrap-around two color letterpress and is under production supervision.

We now print by wrap-around method food packaging cartons of the 6 oz. to 10 oz. sizes on bleached sulphite stock ranging in thicknesses from 0.010 in. to 0.025 in. The plate is photocomposed with from six to ten images up. Press runs range from 25,000 to 200,000 impressions.

Photoengraver's alloy can now be obtained in the 40 in. by 48 in. size which we require. A register system based on prepunching the plates and photocomposing the work to the punch holes has been employed successfully on a number of jobs. The plate placement on the press is now speedy and accurate.

It has been proved at Marathon

Production Begins in *Wall Street Journal's* Cleveland Plant—Midwest editions of the *Wall Street Journal* are now being published in the newspaper's new Cleveland plant. This brings the number of cities where the *Journal* is printed simultaneously to six. Shown is the mailroom in which conveyors carry individually addressed subscription copies from mailing machines, on the right, to the bagging stands. Papers for bulk delivery move underneath the conveyors to the bundle tying tables from the Hoe press in background. Illumination of 65 foot candles is provided.

and elsewhere that underlays, other than for print length, are not necessary and indeed could be undesirable.

Controls Well Under Way

The all important problems of type conversion and dot size control are close to becoming standardized procedure at Marathon. Our inkmakers have done an excellent job of solving the problems of ink throw and are supplying a production ink which works well.

Progress continues in other areas of wrap-around printing which provides the guidance we need. Miehle and Harris have each designed a small single color press and introduced it on the market. Du Pont has developed wrap-around Dycril plates suitable for use on this type of press. Flexible magnesium, zinc and copper plates are being etched in flat Dow-like machines. The offset industry will continue to be the best information source for knowledge and skills in further development of the wrap-around process.

Avoid 'Cheap Changeovers'

Not too far in the future we should see a number of exciting things. There will be available a large range of wrap-around press sizes. On this point, let me sound a warning about the seeming ease of press conversions. Analyze and discuss it fully with your press manufacturer before embarking on a "cheap changeover" of the press.

Success of the various approaches to the inking problem will be in the inker's ability to hold precision over wider and wider presses. This problem will be compounded by the drive for less depth in the etching. There is one external problem that would prevent printing from depths of 0.003 in., and that is ink drying.

Should between deck drying become available to this process, the only depth requirement would be that of given pressure to effect ink transfer. The lower depths would bring with them lower costs due to less critical materials of a wider variety. Specialized etching or washout equipment will be in evidence as flat machines have physical limitations. Photopolymer plates will be available in all required sizes and may even be of photographic speed.

The realities of photoengravers dealing with pressrooms, electrotypers making negatives, pressmen becoming platemakers, etc., make these new trade alignments inevitable, but impossible to comment upon at the present time.

R&E Council Meeting Set for Dayton

Quality control is the theme of the 10th annual conference of the Research and Engineering Council of the Graphic Arts Industry to be held at Dayton Biltmore hotel, Dayton, O., May 23-25.

According to Paul Lyle, vice president, Western Printing and Lithographing Co., and conference chairman, the subject of quality control will be covered thoroughly from the standpoint of supply and equipment manufacturers as well as users and printers.

"Hey, boss, I finally got the old press up to 20,000 i.p.h.!"

Keynoting the conference will be O. H. Somers of Raytheon, who will outline a general pattern for establishing and operating a sound quality control program.

The following are scheduled to moderate panels on quality control in their specific areas: William Palinski, Western Printing and Lithographing Co., paper; Howard Walker, Meredith Publishing Co., ink; John O. McCahon, Smyth Manufacturing Co., adhesives; Robert Downie, Marathon Div., American Can Co., metals, and J. Leonard Starkey, McCall Corporation, photosensitive materials.

A tour of plants in the Dayton area is also planned for conference delegates. Details and registration forms may be obtained from: Robert E. Rossell, managing director, Research and Engineering Council of the Graphic Arts Industry, Inc., 5728 Connecticut Ave., N.W., Washington 15, D. C.

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Built into Harris 60″ and 77″ presses are features that respond instantly to changes in operating conditions . . . features that insure stability during feeding and registering, sheet transfer, lithographing and delivery—four key zones to quality lithography at low cost.

We call this Harris *Control Zone Design.*

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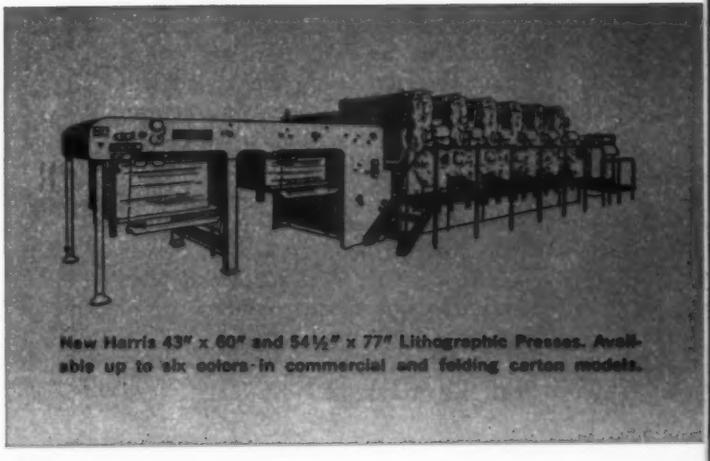

New Harris 43″ x 60″ and 54½″ x 77″ Lithographic Presses. Available up to six colors in commercial and folding carton models.

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Questions To Ask Yourself Before Acquiring Equipment

By ERNEST W. FAIR

WHEN the printing plant executive sets out to buy equipment for his plant, experts tell us, he should bear in mind that if he makes a bad decision he is going to be stuck with that equipment for a long, long time to come.

The seriousness of moving slowly and cautiously cannot be underestimated. Hasty decisions invariably mean selection of a unit whose purchase he may well regret before it has served a single month.

We've talked with a number of experts about the points they suggest every plant owner consider closely before purchasing equipment of any kind. Their suggestions have been summarized in the following list of questions we can well ask ourselves about every piece of equipment we buy in the future.

Can we afford the unit?

There's more to it than having the financing to handle the purchase setup, for each such piece of equipment must be capable of making a profit for us when it is put to use. That production efficiency must conform to others established in our plant. Its purchase should always be viewed from the standpoint of whether or not that particular unit can earn more profit for us than a machine we now have.

Will it handle every possible task in the future?

Buying a unit to satisfy today's particular needs is far less profitable than selecting one which will not only handle today's requirements but those that are probable in the immediate future. Replacing such units is an expensive procedure; we cannot afford to junk the unit within a very short period of time in order to replace it with more adequate equipment.

Is it the most versatile unit on the market?

Much as we may be sold on one particular piece of equipment the experts tell us that it always pays to investigate the product of every manufacturer in the field. After the equipment has been purchased and set up in our plant it is too late to replace it with a better or more versatile unit someone tells us about then. The time to make sure we are buying the very best, most efficient and most versatile piece of equipment is before the purchase order is signed.

Can the particular unit be made to get the job done?

The matter of approach in considering this factor is of vital importance. Too often equipment is purchased with an eye toward adapting its performance to our needs. Experience has shown equipment purchases should be studied from the viewpoint of the job to be done and fitting the unit to that job rather than the other way around. A piece of equipment that is too good for achieving certain performance is just as undesirable as one which is not good or accurate enough.

Have we set up desired specifications?

Writing the specification should be the first order of business after the decision to buy has been made. And this can well be set down on paper for such specifications become vague when left to memory and are apt to be influenced by the sales pitch of the individual equipment salesman to whom we are talking at the time.

"What a gold mine!!"

Is every manufacturer's product being considered?

The wise investment of such long term capital funds call for always making certain that we have information concerning every manufacturer's unit before us at the time the final selection is made. This is one time it pays any printing plant owner to consult advertising in publications such as this and other sources to make certain no unit of outstanding merit has been overlooked in consideration of the equipment that is about to be purchased.

Will the unit under consideration fit into use of other possible pieces of equipment we now have?

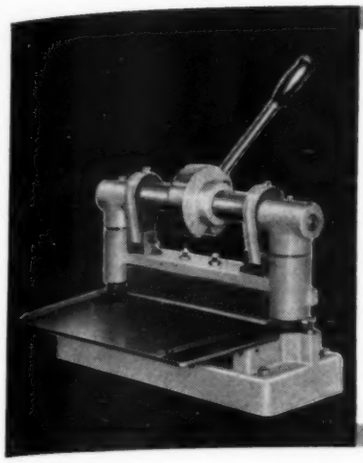
The investment in this single purchase is small in comparison with the overall investment in the plant itself. It is far less expensive to buy a unit which fits into the present flow of work than one which will require vast and expensive changes in the plant as it exists today. Versatility is desired to not only fit perfectly into the present set-up but to lend itself to future replacement of other units in an effort to increase over-all performance figures.

How high a degree of accuracy exists in the unit?

We cannot afford to sacrifice any degree of accuracy today for price or any other consideration. The competitive trend for the future is definitely toward perfection. Such high degree of accuracy also assures top performance at all times and also is an asset in permitting use by less skilled personnel in emergency.

What degree of quality workmanship exists in the unit?

Good workmanship in the essential parts increases equipment life and reduces troubles, breakdowns and inaccuracies. There is no real substitute for quality in any piece of equipment we may buy; other concessions serve only to cover up



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CUTS ZINC, COPPER, LEAD, EASILY... Cam-powered blade multiplies hand-pressure 20 to 1 to trim plates and stereotypes square and clean. Leaves no burr. Cut edge requires no filing. Faster and cleaner than metal saw. Many uses in composing room and engraving shops. Saves time and labor. Tool steel blade has four edges to be used before resharpening. Shears narrow strips. Will square half column cuts or chop big stereotypes. Ruggedly built for heavy duty. Unconditionally guaranteed. Write for folder.

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3. 24" MODEL, weighs 260 lbs., measures 8"x32".

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this important asset. Where quality workmanship is lacking useful life always is reduced and that means such a unit costs more in the long run than purchase of top quality would have originally.

Simplicity of construction?

This is a most important asset for it determines not only how easily the unit may be operated but high or low cost in disassembly and re-assembly, repair and maintenance. This asset, however, should always be viewed from the direction of how high a degree of quality we can obtain with such simplicity of construction and never from the standpoint of simplicity alone.

How reliable is the unit?

Taking chances, to save initial capital investment, on the performance reliability of any unit never saves money . . . only adds to the year-in and year-out cost of use of the equipment. Dependability and reliability are musts for the equipment we buy today.

Is it easy to maintain and repair?

This factor should always be given close scrutiny. A piece of equipment which needs special repair service or time-consuming maintenance every time it is out of order is definitely less desirable than one which can be serviced, maintained, and repaired with speed and low cost. Any design is undesirable which causes cumbersome work in dismantling and replacing or which involves extended delays in obtaining such service.

What will be the installation cost?

This is, the experts tell us, the most frequently overlooked point in equipment replacement consideration. Many a unit which appears less expensive turns out to be the most costly of all by the time it has been installed and put into use. The cost of installation should always be considered in analyzing such pieces of equipment of any kind.

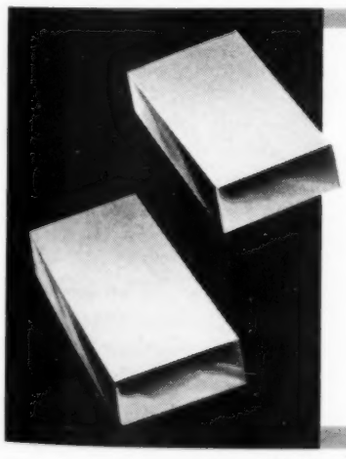
How safe is the unit?

Sometimes manufacturers find they can keep costs down below the competitive average by sacrificing safety features or specifying these as extras to the purchase price. In any unit where there are more than the usual danger points and additional protective devices are exceptionally expensive or will not fully cover the dangers, it is best not to buy such unsafe units

Will it fit into the space we have available?

Space, weight and height are all important considerations. Where the unit will require major structural changes or additional space this cost factor must be taken into consideration in choosing between one or the other.

There are, of course, other factors which pertain to each specific unit but the foregoing represent points which every printing plant executive can well apply to the purchase of any piece of equipment as factors of basic consideration.



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Color Register In Photography

By FRANK M. PREUCIL, *Supervisor, Photographic Div., Lithographic Technical Foundation.*

A number of process photographers have asked about masks made through one filter that won't register with separations made with another filter. One cause for this trouble, often unsuspected, is the lens. Occasionally, a lens of even the best manufacture will produce a different size image with red, green, and blue filters. Here's an easy way to test a lens for this fault.

Draw a clean, very thin line with India ink and a ruling pen. Make a reduced negative of this line so that its width is as thin as possible, somewhere around 0.001 in. On this negative and over the clear line, tape the red, green, and blue filters, side by side, with the edges butting.

Mount this assembly in the camera positive holder. Focus the line a foot or so off center on the ground glass. Then examine the color junctions. If they are shifted so you can't lay a straight edge along them, the lens is faulty. If the fault is excessive you won't be able to make a satisfactory set of separations or masks and the lens should be corrected or replaced.

Sometimes trouble is experienced only when trying to register a camera back mask made with one filter with a separation being made with another filter. In this case, the filters may be causing the trouble.

Even the best gelatin filters are slightly wedged or thicker at one edge. This can shift the image but should not affect its size. The remedy here is to orient and use the different filters with their thicker edges all in the same direction. To check this, make a master test separation negative on a matte surface glass plate. Put it on the camera register bar. Rotate the different filters in the holder that inserts in the lens. Keep checking the projected image of the copy through the filters looking through the test negative. This will show if filter position affects register and the place where its effect is least.

If you use the spaced magenta camera back mask system you may improve results with masks that are more unsharp. Place a clear glass plate in the mask position and focus sharply on the plane where the separations are exposed. Then use a lens aperture large enough to make the mask slightly blurred. Masks made with small stops are sharp and very hard to register.

Web Offset Perfecting Press Packing

Cylinder packing of a blanket to blanket web offset perfecting press is very critical. Bad packing practices can lead to short plate life, low quality, and even torn and damaged plates, especially when using presensitized plates.

This warning came from the New York Employing Printers Assn., Lithographic Div., with suggestions for correct methods of packing.

Blankets should be run as low as possible with minimum pressure. Blanket cylinders may be packed 0.001 in. above bearers and still print well on light papers. To adjust blanket cylinders to the minimum distance, a thin film of ink should be placed on the bearers of one cylinder. With impression on, the cylinders should be moved together until a slight transfer of ink takes place from one bearer to the other. At this setting, bearers will be approximately 0.001 in. apart.

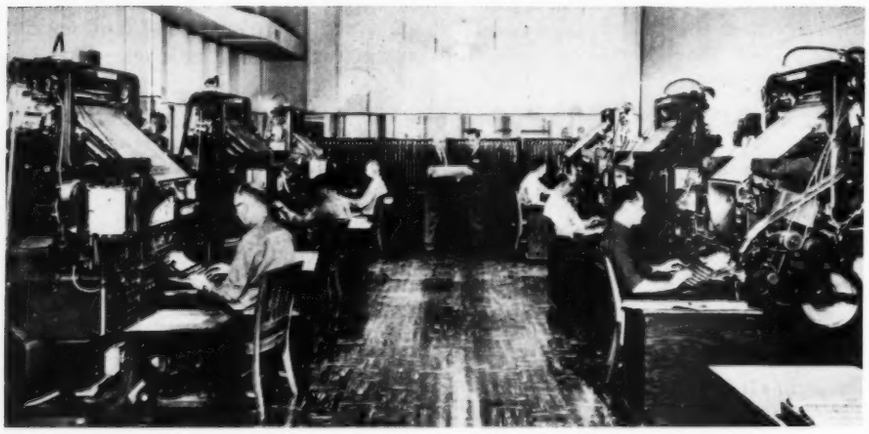
Each blanket should be packed to 0.001 in. above bearers in order to provide contact between blankets. Printing on a web of thin coated paper of a thickness which varies from 0.003 in. to 0.005 in. should produce good results if blankets are free of glaze and other conditions are good.

For heavier papers in the 0.005 in. to 0.007 in. range, blankets should be packed to bearer height. For still heavier stocks, cylinders may be moved apart. Uncoated papers, for example, will require heavier settings than described above. It is best to standardize on a packing which will accommodate most stocks which are to be run on the press since it is troublesome to remove and reinstall blankets on a web press.

When blankets are packed 0.001 in. over bearers, grained plates should be packed 0.002 in. to give the recommended squeeze of 0.003 in. Presensitized plates should be packed 0.001 in. over bearers to attain its recommended 0.002 in. squeeze.

After the correct packing has been attained, the press should be run for a few revolutions with impression on. A packing gauge should then be used to check the settings.

The same general principle holds true on other offset presses. If the blanket is packed low and plate packed high, there will be less wear on delicate plates. On nonperfecting sheetfed presses blankets can be packed below bearer height and still make contact with the paper. This is due to the lack of bearers on the impression cylinders.



Photocomposition Pioneer Employs Six Fotosetters—Six Fotosetter machines are now employed in the Fotosetter composing room of Warwick Typographers, Inc., St. Louis. The firm, which pioneered photocomposition 10 years ago with the installation of a Fotosetter, also has a darkroom and film processing department. Shown, in the rear of the photo, are Hubert J. Echele, Warwick president, and Adrian Olszewski, manager, Fotosetter Div.

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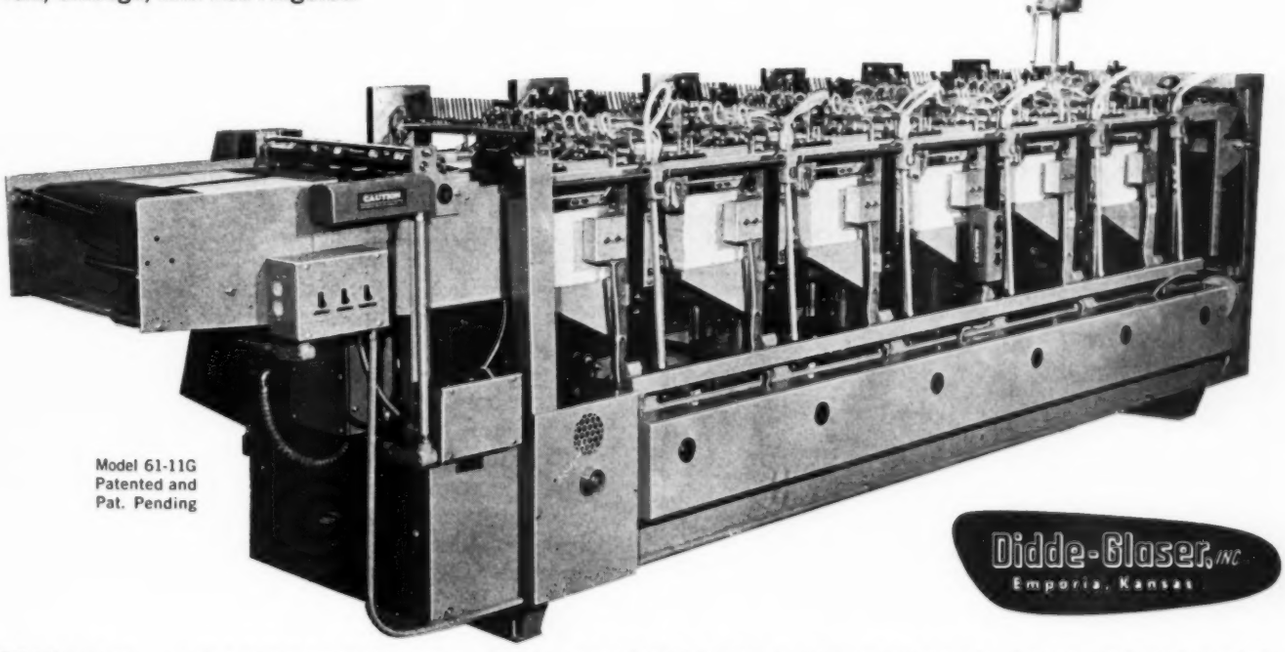

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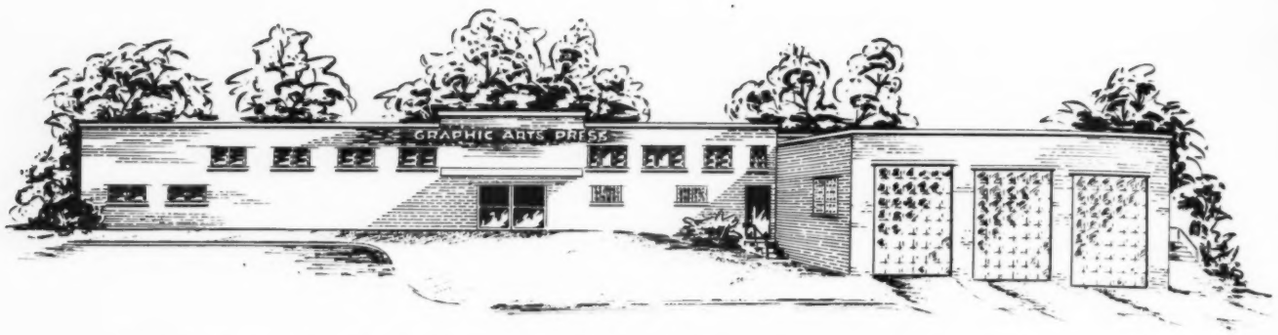


Graphic Arts Press, Inc., Washington, D. C., bought existing building and remodeled it to house two plants under one roof.

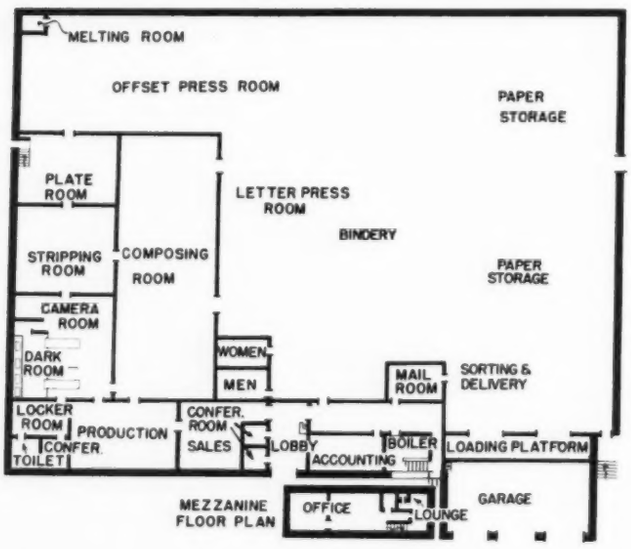
Moves Two Plants Into Remodeled Building

REFLECTING a pronounced trend in the printing industry for the establishment of combination printing plants, Graphic Arts Press, Inc., Washington. D. C. has been housed in its own building since last midyear. The firm does magazine, newsletter, pamphlet and general commercial printing. Both letterpress and offset processes are employed.

Until its move into the new building, the company carried on its operations in two separate locations. Graphic Arts Press (originally an exclusively letterpress plant) was acquired by the present management in 1956. In 1957, the same management group acquired ownership of the Washington Planograph Co., Inc., which was an exclusively offset printing plant. The letterpress and offset plants were located 20 city blocks apart.

The new home of the company is located 10 min. distance from the heart of town. It consists of 32,000 sq. ft. of unbroken space all on one floor. Offices are located on the second (mezzanine) floor at the front of the building.

The building had been used previously as a grocery warehouse. In preparing the building for printing plant tenancy, it was necessary to install partitions for operation of the different mechanical departments. This was accomplished through staff meetings. The rough layouts were then turned over to the architect.



Coordinated workflow is feature of Graphic Arts Press. Ample room is provided for paper storage and processing.

One of the construction features of the building is a 4 in. aluminum faced fibre glass insulation. Plans have been drawn for gas-air conditioning.

From the production standpoint, the outstanding feature is the manner in which the departments are laid out. It provides an efficient and constant workflow from the moment the job is brought through the front door, is processed through the production areas, and is ready for delivery to the customer through the three shipping bays.

The building with its improvements and with new equipment amounted to an expenditure of $750,000.

The production departments are self-contained for producing letterpress and offset printing.

In the composing room four Linotypes and Ludlow equipment produce the type matter. Six presses of various capacities are operated in the letterpress pressroom.

The offset platemaking section contains darkroom facilities for the two cameras. In the stripping room light and lineup tables, together with negative storage cabinets are provided.

The plate room is equipped with a whirler, vacuum frame, arc lamps, rubdown tables and sink for processing pre-sensitized plates which are used exclusively in this plant.

Four single color presses and a two color press of varying size are operated in the offset pressroom. An additional two color Harris LUP press will be installed next month.

The bindery is equipped for doing a variety of work. There are two power paper cutters, four folders, two gang stitchers, a 10 pocket Sheridan gathering and side stitcher, five hand stitchers and two drilling machines.

A complete Speedaumat installation and facilities for Dick-stripping and bulk shipment are to be found in the mailing and shipping department.

Graphic Arts Press employs over 100 people. Ira H. Kaplan, executive vice president, states that this is a 50% increase in company employment since the move to the new location was begun in June 1959. John S. Beckham is general manager. The production manager is Al Kay who is a graduate of the Rochester Institute of Technology. Plant superintendent, Ed Degner, is a practical printer who has handled many customer contacts for the company.

FRONT PAGE STORY

Corona, N.Y. - In these days of increased costs of newspaper printing production, mechanical superintendents and production heads of stereotype, composing and photoengraving departments as well as press rooms, are unanimously agreed: The only bargain today is quality.

Quality can only be measured in terms of performance. Day after day, dependable, proved performance.

A glance at Page 1 of the Eastern Catalog No.24 tells most of the story. The rest of the story lies in expert processing of orders without delay, plus the consistent economy of doing business with Eastern.

These are some of the outstanding firms represented by Eastern:

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MINNESOTA MINING & MFG. CO.	WESEL MANUFACTURING CO.
THE MORRISON COMPANY	LAKE ERIE ENGINEERING CORP.
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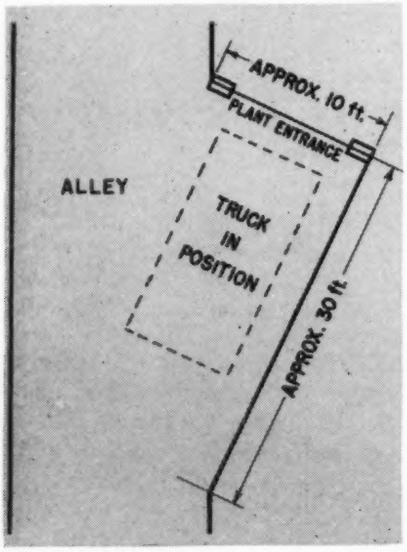
NICHE SOLVES ACCESS PROBLEM

Printing plants that elected to remain in crowded uptown locations where every foot of space is at a



premium are using various ways to at least partially solve the problems created by lack of space. One of these problems is that of rear entrances at which trucks may be parked while loading and unloading.

Benson Printing Co., Nashville, Tenn., faced the need for a rear entrance—exit to a very narrow alley—so narrow that it would be impossible to park any size truck (at right angle or parallel) at an entrance through the rear wall and at the same time have passage room in the alley.

A section of the rear wall and foundation was rebuilt to form a niche sufficiently large for a small or medium size truck to be backed in to the entrance and parked without obstructing passage through the alley. Material handled through this entrance avoids long trucking to the main receiving and delivery dock of the plant elsewhere.

This access may be especially useful for city delivery service on items to be delivered in surrounding uptown area.—*P. R. Russell, Staff Correspondent.*

CHECKING ACCURACY OF SAWS

Here is a simple way to check accuracy of cut in composing room saw-trimmers. Accuracy can be determined quickly without special tools or go-no-go gauge.

Cut a dozen slugs to 5 picas. Then lay them end to end on a galley. If the saw-trimmer gauge has been set accurately, the total length of the slugs will be 60 picas. If the measure is incorrect, the saw's point gauge can be adjusted with a screwdriver.

The basic idea of this method is that any error in the gauge setting is multiplied 12 times.

In our practice, we feel it is preferable to have the saw cut about 1/4 pt. short per slug so they will fit into the stick readily.—*W. R. Lovelace, typographer, Lino-Typecrafters Co., Minneapolis, Minn.*

PERFORATING LIGHT STOCKS

To avoid trouble in perforating lightweight stocks on platen or cylinder presses, try this: simply rub ordinary floor or automobile wax on the blanket, especially on the perforation identations. Two or three applications during an average run will prevent the sheets from hanging to the platen or cylinder. The finest stocks will not be marred or discolored, and the perforation is clean and sharp.—*James F. Ball, Oakland, Calif. Courtesy Kimberly-Clark Corporation.*

PRE-COATED FIR PLYWOOD FOR PHOTOMECHANICAL TANKS

A fir plywood panel pre-coated with a special resin-impregnated fiber surface is used as a material for tanks exposed to photomechanical processing liquids, reports Douglas Fir Plywood Assn. The material is used for making tanks which contain processing liquids such as those requiring special containers in offset-lith and photoengraving platemaking plants.

The surface is smooth and is applied at the plywood mill. The overlay is bonded permanently to the surface of exterior type fir plywood. The coating material is made with a waterproof glue. The tank shown in the picture is one of several installed recently by the St. Louis Lithographing Co. in its platemaking department.

The plywood is claimed to have high resistance to impact, to be light in weight and to be easy to repair if damaged. In future tanks,

This platemaking tank is built from fir plywood which has been pre-coated with a special resin-impregnated fiber surface. The overlay is bonded permanently to the surface of the exterior type fir plywood. This tank is one of several installed at St. Louis Lithographing Co.

Elmer Van Hoogstraat, plant superintendent of St. Louis Litho, plans to countersink the tie rod heads on the operator's side to avoid catching clothing.

HOMEMADE SCREW GAUGE

For those who would like to make their own screw size gauge, this is how it was done in our composing room. The gauge illustrated here can be made from either 1/16 in. or ¼ in. thick cold rolled steel. Extending centrally up and down the plate and spaced ¼ in. or ½ in. apart are drilled the screw diameter sizes. The screw sizes and threading may be stamped with punches by hand. The one shown here is for the most used small size screws in line and type composing machines. Matrix Contrast material or plain paint makes the figures more easily readable.—*Peter J. Kenney, machinist, Pottsville (Pa.)* Republican.

GUMMED STOCK ON PRESS

This is a practical method for printing self-adhering pressure-sensitive gummed stock which is used in our pressroom. A shallow box lid containing a small amount of talcum powder in one end will aid in running this particular kind of stock on automatic air-fed presses.

Jog the cut edges of each lift of the stock in the lid containing the talcum and place in the feeder. Any excess powder will be blown free by the air blast. The remaining talcum particles that hang to the stock will help prevent sticking after the job is wrapped.

The value of this method is the difference between separating a few sheets by hand and then hand feeding, or in running from 3000 to 5000 per hr. and jogging the stock in the talcum powder while the press is running.—*Mary E. Merrill, Acme Printing & Stationery Co., Sedalia, Mo.*

PRESS STATIC ELIMINATOR

Most pressrooms are bothered from time to time with static. In our plant we have it when operating the Goss Cox-o-type press. To subdue this bothersome gremlin, we wet a shop rag and hang it on the tabloid cutter shaft to permit the free end to drag lightly on the paper. For us this gets rid of static trouble, even on single page circulars, which frequently are troublesome on the press. — *Franklin H. Elledge, mechanical superintendent, Brinkley (Ark.)* Argus.

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EQUIPMENT AND SUPPLIES

You may easily and quickly obtain additional information on the new equipment, supplies and services mentioned on these pages by completing the special Reader Service Card conveniently found in this issue.

AUTOMATIC VACUUM PRE-DRIER FOR STEREOTYPE MATS

An automatic vacuum stereotype mat pre-drier has been announced by Tri-Q, Inc. Manufacturer states mats are held flat by vacuum during the drying period while obtaining high shrinkage and at

the same time holding maximum molded depth during the drying period through infra-red heat lamps.

Described as completely automatic, the operator drops the mat into the unit without exact placement. The drying period is controlled by a timer. Upon completion of the drying cycle, the mat is returned to the operator in the compartment at the bottom of the pre-drier.

The timer is said to be quickly adjustable and no time is lost in converting from packless to standard mats and vice versa. Sponsor claims the uniform drying action prevents case hardening of the mat which facilitates further processing. Circle No. 275 on Reader Service Card.

NEW TYPE FACES FOR ATF TYPESETTER

Several type faces in the Century Schoolbook and Spartan series have been made available on discs for the ATF Typesetter phototypesetting machine, according to an official of American Type Founders Co., Inc. Included in the new faces are: Spartan Book and Spartan Book Italic, Spartan Medium and Spartan Medium Italic, Spartan Heavy and Spartan Heavy Italic, Spartan Book and Spartan Heavy—all available in 6, 8, 10, 12 and 14 pt. sizes.

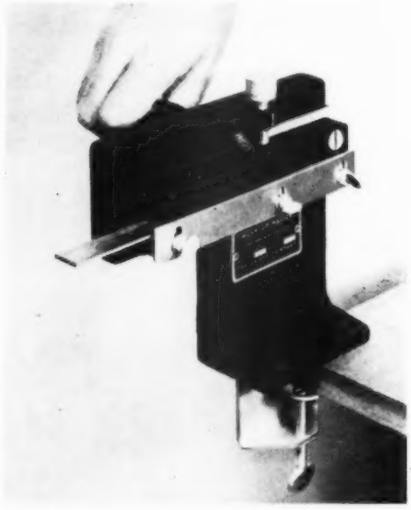
Other faces introduced are: Spartan Black in the 8 pt. size; Century Schoolbook and Century Schoolbook Italic, and Century Schoolbook and Century Schoolbook Bold—both in 8, 9, 10 and 12 pt. sizes. Circle No. 253 on Reader Service Card.

CUTTING RULE FOR LITHO PRESSES

Litho-slit, a product that cuts windows, slits or cuts off corners of stock during a regular lithographic press run, has been introduced by H. S. Boyd Co. The Litho-slit cutting rule is applied to the impression cylinder of the press with a special polyester tape so that cutting can be done simultaneously with the printing impression. The cutting rule is available in 3, 8 and 16 cuts per in. Reportedly, the unit will accommodate a variety of stocks in various weights. Circle No. 266 on Reader Service Card.

UNIT FOR STOPPING FORM WORKUPS

A knurling unit which reportedly prevents workups on letterpress forms has been introduced by Lajacs Company. Operated somewhat like an old-fashioned clothes wringer, the Work-up Master



(as the unit is known) embosses a coarse knurled pattern on a lead or slug as it passes between its hardened corrugated rollers. The knurling reportedly thickens the bottom edges of the lead or slug from 0.005 in. to 0.008 in., thus making it pack more firmly in the form. It is claimed that leads from 2 pt. to 18 pts. thick can be embossed by using the interchangeable attachments which accompany the model. Circle No. 272 on Reader Service Card.

USCOTHANE GRAPHIC ARTS ROLLERS

A new line of Graphic Arts rollers made of Uscothane, a rubber-like material, is being offered by Grafco Roller Co., Sub. of Graphic Supply Co. Known as the Tru-Tone roller, the new product is manufactured by United States Rubber Co. and was developed as a result of polymer research. Among the advantages claimed for the rollers are that they are easily cleaned and that they remain unaffected by atmospheric conditions such as temperature and humidity. Circle No. 263 on Reader Service Card.

LINE OPERATED, PORTABLE pH METER

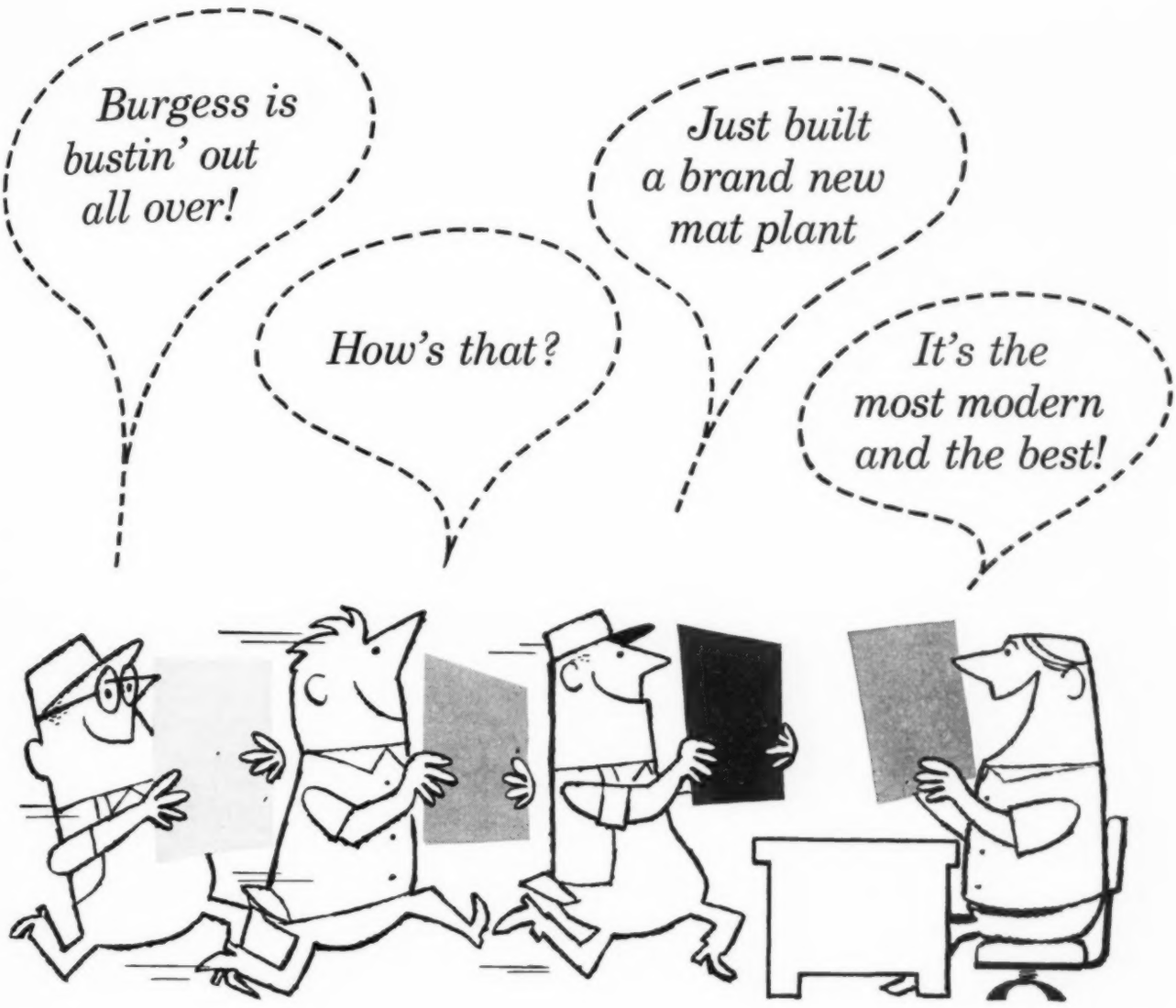
A portable pH meter on which it is possible to read pH values within 0.02 pH has been announced by Analytical Measurements, Inc. Known as Model 700 Big Scale pH meter, the unit is portable

and may be used wherever a standard 115 V., a.c. outlet is available. Among the features of the meter are a single operating control and a high output electronically modulated amplifier, with printed circuitry and sensitive meter elimination. The polyethylene electrode probe unit on the meter permits the user to bring the meter to the sample. Circle No. 259 on Reader Service Card.

IMPROVED AUTOMATIC MEASURING SYSTEM FOR MACHINE COMPOSITION USE

Production Monitoring System has been improved by adding new components for measuring machine composition for production and estimating information. Units are available for use with Intertype, Linotype, Monotype and for Teletypesetter perforators, reports Production Monitoring System Div., Frost Associates.

According to the manufacturer, keystrokes made by a machine operator are counted individually by a method of pulsing which does not interfere with the operation of, or require alteration to, the machine being monitored. The count is



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obtained by an external pulse generating circuit which accumulates a total corresponding to the number of key depressions.

At the completion of each job, the operator inserts his time card in the printing unit of the counter where the stored total of keystrokes is automatically printed. The counter resets itself to zero and is ready for the next run.

Furnished with each unit are all necessary parts and installation instructions to enable plant maintenance personnel and composing room machinists to complete an installation in a matter of a few hours. Routine maintenance is claimed to involve minor cleaning and oiling only. Circle No. 269 on Reader Service Card.

BACKLINING AND HEADBAND MACHINE HANDLES BOOKS, 3 TO 14 IN. LONG

Dexter Company, Div. of Miehle-Goss-Dexter, Inc., has acquired rights to the Schuler backlining and headband machine. According to the company report, the machine applies crash, backlining and headbands in hard binding operations.

The unit is rated at approximately 20 lineal ft. per min., with books being fed backs down on an untimed basis. Reportedly, the unit may be synchronized with feeders or with other machine functions. It is estimated by a Dexter official that up to 48 books measuring 6 in. long and up to 30 books measuring 12 in. long can be considered a normal production rate per min. for the Schuler machine.

Because books are suspended backs down, there are no support irons or pushers to set and reportedly no chance of marking a job. Set-ups and change-overs are accomplished with handwheel controls. Flat back, round back or rounded and backed books may be handled by the unit, with or without backlining and headbands.

Two models of the Schuler machine are available. Model A applies single crash, (super) backlining paper and headbands; Model B applies double crash, backlining paper and headbands. Basic specifications permit either model to handle books from ½ in. to 4 in. thick, 3 in. to 14 in. long, with a minimum height of 3 in. Circle No. 270 on Reader Service Card.

UNIT FOR TESTING MAGNETIC INK

A tester which accepts or rejects magnetic ink printing has been developed by Ballantine Laboratories. Known as the Ballantine Model 305-U11 Magnetic Ink Tester, the unit contains a go-no-go scale. The Kidder Press Co. manufactures the transport device into which the check is placed and whose output is fed into the Ballantine instrument. Circle No. 265 on Reader Service Card.

ROBERTSON RESTYLES PRODUCT LINE

Robertson Photo-mechanix, Inc., has made some style changes in its line of cameras and other photomechanical products. Among the changes is the adoption of a new type of silicon paint. The baked finish of the new gray paint reportedly protects the product against corrosion from acids and similar matter, repels dust and is non-reflective.

Other modifications include restyled control handles which reportedly increase operator comfort and ease of operation. The instrument panel on the Comet and the 480 cameras have also been redesigned. Circle No. 268 on Reader Service Card.

MAGNETIC ENCODING OF BANK CHECKS

Spot carbonized payroll checks are now being encoded with magnetic ink by Transkrit Corporation. Special electronic testing equipment for quality control to insure that the magnetic encoding meets specifications of the American Bankers Assn. has been installed by the corporation. Circle No. 254 on Reader Service Card.

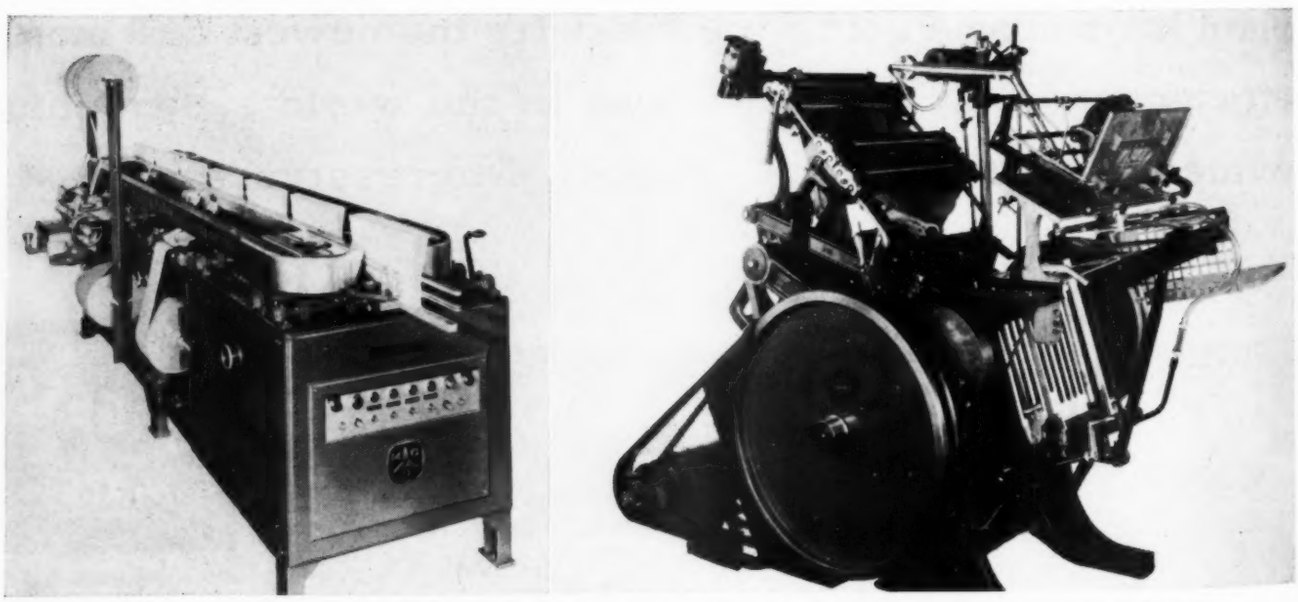
IDENT-O-MATIC NAMEPLATE PRESS

A nameplate press for stamping individual letters and numbers on identification plates and tags has been announced by Identification Systems Co. Known as the Ident-O-Matic, the unit may be used for marking keys, tool room tags and for other identification purposes. Circle No. 260 on Reader Service Card.

KLUGE PRESS FOR MAGNETIC INK CHARACTER RECOGNITION PRINTING

Brandtjen & Kluge, Inc., has announced the development of the Series C Kluge magnetic ink press. The press is available in the 10 in. by 15 in. and 12 in. by 18 in. sizes and is designed for production of magnetic ink character recognition printing.

The Series C press is similar to the six-roller Kluge automatic press. Additional features incorporated in the new press include an ink agitator, ground rubber rollers and a precision ground platen. Identical features may also be incorporated into a Kluge A-K continuous forms press for production of magnetic ink printing on continuous business checks. Ink milling and distributing capacity is obtained through the four form rollers with two vibrators and the two distributor rollers with a steel rider. Circle No. 267 on Reader Service Card.



At left, is Dexter's new backlining and headband machine; the C Series Kluge magnetic ink press appears at the right.

PORTABLE 12-STATION COLLATOR

A portable 12-station collator has been made available by A. P. Heinz Co. It is claimed that 6000 pages per hour can be assembled manually through use of the collator. The unit occupies an area

of 1½ sq. feet and weighs 7 lbs. Each of the 12 stations holds 300 sheets of 20 lb. paper. Maximum sheet size is 17 in. by 11 in. Center rods are removed for paper more than 8½ in. wide; spring spaces are used for paper less than 11 in. in length. Circle No. 278 on Reader Service Card.

DISPOSABLE MOLLETON PRESS ROLLER

A molleton roller designed to fit most offset duplicator presses has been announced by Van Son Holland Ink Corp. of America. Called the Thro-Way because it is disposable, the roller reportedly allows no dryouts at the edges of the plate and has no seams or bumps. The roller is made for both ductor and form use. Circle No. 252 on Reader Service Card.

BLACK INK FOR NON-MOLLETON SYSTEMS

Chromatone Div., Polychrome Corporation, has introduced a new black ink for use on presses having the Synflo type (non-molleton type) ink-water fountain system. Reportedly, the ink resists emulsification and gives maximum black copy in reproduction. Designated WR 5242, the ink is said to be non-skinning and rapid drying upon contact with paper. Circle No. 256 on Reader Service Card.

MAGENTA AND GRAY CONTACT SCREENS IN RECTANGULAR AND CIRCULAR MODELS

Magenta and gray contact screens for photolithography and photoengraving have been made available through Royal Zenith Corp. Called the Policrom Magenta Gold Tone and Policrom Gray Velvet Tone, the screens are made of polyacetate, which reportedly will not curl and will withstand buckles, scratches and markings. The screens are available in circular and rectangular models and have a thickness of 0.003 in., which is said to simplify use in camera vacuum backs.

The rectangular model is available in sizes from 8 in. by 10 in. to 31 in. by 31 in.; the circular model, in 24 in. and 31½ in. diams. Both models are available in 50 to 150 lines, plus 175 and 200 line models with 15, 30, 45 and 60 deg. angles.

The circular screens are pre-angled with the angle of inclination engraved on the edge of the screen. Also available is a four angle process pack of retangular screens, including four screens with varied angles for basic three color and four color process work.

It is reported that four steps are required to increase contrast when using the magenta screen: Make the exposure through a magenta filter, use a strong exposure light for a short period, employ a concentrated developing bath, agitate the bath.

To decrease contrast: Make the exposure through a yellow filter, use a weak exposure light for a long period, dilute the developing bath to a max. of 1:3, develop in a closed bath.

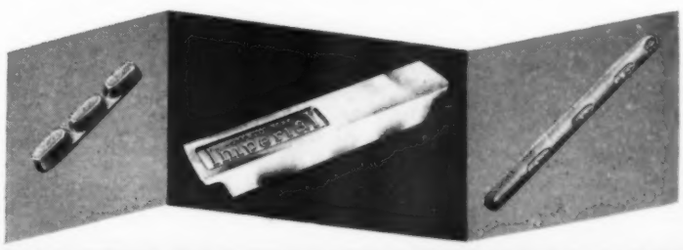
The gray screens are supplied in a single average graduation. Contrasts and flattenings are obtainable by means of regulation of light, regulation of the developing bath, and by the degree of bath agitation. Circle No. 261 on Reader Card.

LAWSON HOLLOW PAPER DRILL

A hollow paper drill with a thin coating of tungsten carbide on the drill tip has been introduced by Lawson Company, Div. of Miehle-Goss-Dexter, Inc. Called the Flame-Tip, the drill is said to require less sharpening and will last longer because of its tungsten carbide coating. The drill is available in sizes from ⅛ in. through ½ in., with increments of 1/32 in. Circle No. 255 on Reader Service Card.

Beyond duplication

The Colossus of Rhodes, one of the Seven Wonders of the World, cast in metal by the Greeks in 280 B. C., was beyond reproduction. In casting type metals today...Imperial type metal with Plus and Service Plans are superior in giving complete freedom from metal worries and loss of production. Write...will send details.



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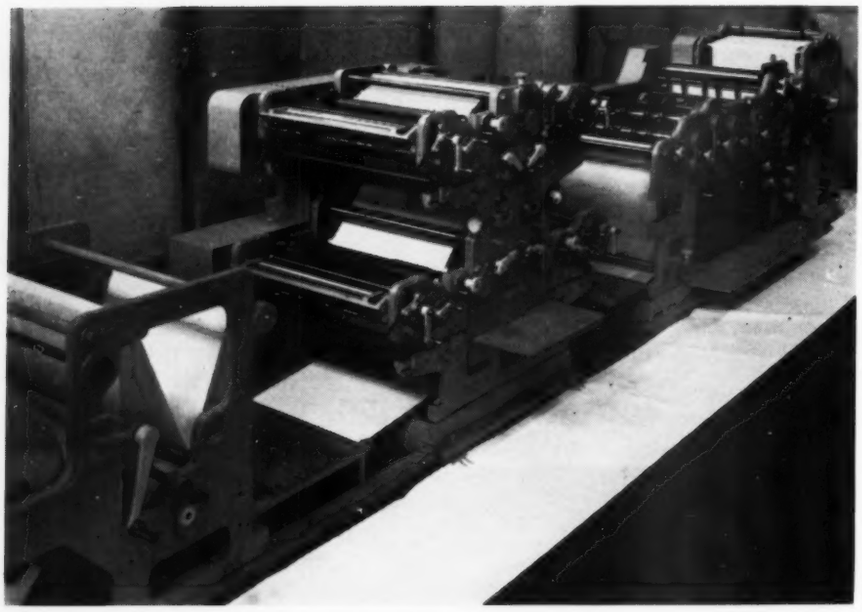


The ATF rubber plate business forms press reportedly handles continuous and snapout forms in cut-off sizes from 14 in. to 28 in. Maximum web width is 26½ in.

VARIABLE SIZE BUSINESS FORMS PRESS

A rubber plate business forms press which handles variable size snapout and continuous forms has been introduced by American Type Founders Co., Inc.

The press consists of four printing units which may be operated as two color printing units and two numbering units, as three and one, and in other combinations. Maximum web width is 26½ in.; while cylinder cut-off dimensions may range from 14 in. to 28 in. with increments of ¼ in.

The variable size is made possible by the construction of the printing units. To change cylinder circumference sizes, the inking units are rolled away and the rubber plate printing cylinder removed and replaced by another cylinder of the desired size. One set of cylinders for the three printing units is supplied with the press. Cylinders of other sizes are optional equipment.

Two fixed size perforating units and three fixed size punching units are supplied. In addition, provision is made for installation of units in any size to run with comparable cylinders. Tab cutting for any size cylinder may also be supplied in place of the additional punch unit.

Other equipment supplied includes a diameter roll feeder unit in a maximum size of 40 in.; a diameter roll rewinder with maximum size of 22 in., and a variator to control the speed of the metering roll and thereby the board length. Circle No. 277 on Reader Service Card.

ELECTRIDUCT SYSTEM FOR ENCASING OVER-THE-FLOOR ELECTRICAL WIRING

An over-the-floor wiring system designed to meet the needs of individual plants is offered by Ideas, Incorporated. Known as Electriduct, the product is made of rubber and is designed to encase electrical wiring which must pass over the floor area. Electriduct hugs the floor and reportedly equipment on casters may be rolled over it easily. The product is available in standard lengths or custom made sections. Circle No. 250 on Reader Service Card.

REGISTER CONTROL FOR ROTOGRAVURE, ROP, MULTICOLOR LETTERPRESS PRINTING

Electric Eye Equipment Co. has introduced a new Hurletron circumferential register control for use in rotogravure, newspaper ROP color, multicolor letterpress, and webfed offset printing. Known as the Hurletron Model 179-J, the control

reportedly may be used for backup, cut-off, sheeting and cutting and creasing. The unit is transistorized.

Among the features claimed for the control are: Constant corrective action to error, a compensator which keeps register within 0.003 in. under normal conditions at speeds proportional to the degree of error, ability to detect web mark in small areas, and modular circuits for detection of defective circuits. Circle No. 271 on Reader Service Card.

INFRA-RED GAS BURNER FOR INK DRYING

A high radiation "H" burner for ink drying has been announced by Red-Ray Manufacturing Co., Inc. The burner is available in two types: One of an alloy for elevated temperature; the other of cast gray iron for open applications. The unit can be made in any desired length from 7 in. to 100 ft. or more.

Designed to provide from 150 BTU's to 3000 BTU's per linear in., depending upon the gas-air mixture, the unit releases heat equivalent to 45 to 900 W. per linear in. Combustion occurs within the fluted refractory, which attains temperatures to 2600 deg. F. when operated in the open. Circle No. 273 on Reader Service Card.

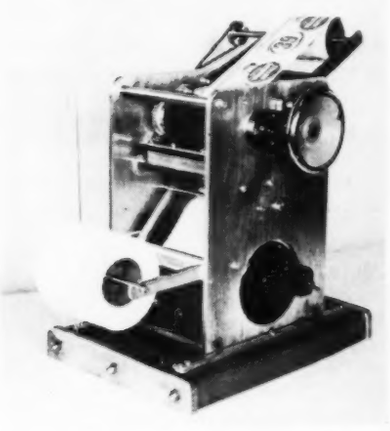
AMSTERDAM ADDS THREE NEW SIZES TO S&S FLATBED OFFSET PRESS LINE

Three additional sizes of the S&S flatbed offset press have been made available through Amsterdam Continental Types & Graphic Equipment, Inc., U. S. distributor of the press. The added sizes are: 23 in. by 30 in., 43¼ in. by 63 in., and 52 in. by 77 in.

The press is designed for multicolor offset proofing, short run color work and for printing acid resists for etched nameplates and electronic circuits. Among the features of the press are: A 14 roller inking system with three form rollers; one-way action of inking rollers except when heavy coverage for etching resists is required, and an optional two speed drive. Other press sizes are: 18 in. by 25 in., 25 in. by 37 in., 20 in. by 42 in., 36 in. by 50 in., and 42 in. by 56 in. Circle No. 257 on Reader Service Card.

SOHN FLEXOGRAPHIC LABEL MAKER PRINTS LABELS TO 5 IN. BY 6 IN.

A flexographic label maker which will print and cut labels, ranging in size from 1 in. by 1 in. to 5 in. by 6 in., has been announced by Sohn Manufacturing, Inc. The unit will print and diecut on pressure sensitive paper with backing. It is



also reported that the product may be used for scoring on pressure sensitive, heat seal, water soluble gum, plain, foil, tag and starched cloth stock. Circle No. 251 on Reader Service Card.

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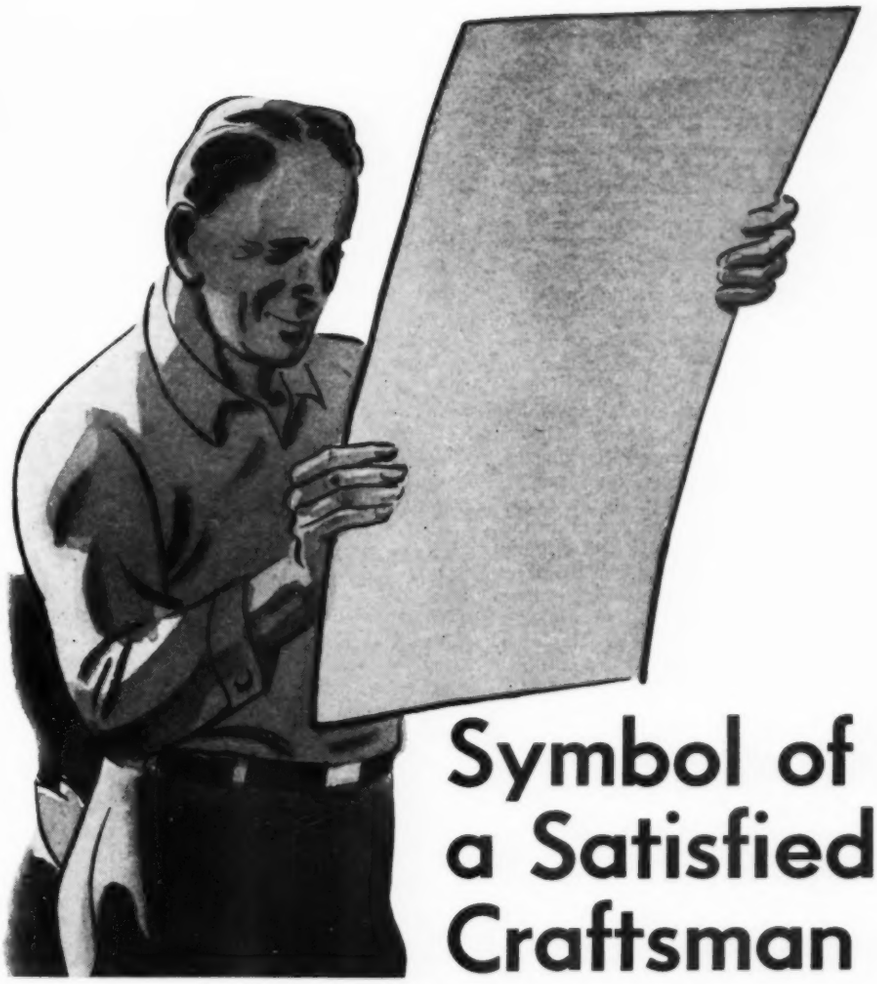
A Certified BLUE RIBBON MATS

Blue Ribbon Mat for every advertising purpose



Symbol of a Satisfied Craftsman

Blue Ribbon UC Mats

Sensitive base and coating tough enough to withstand pull of undercut halftone dots render this mat a good choice for general newspaper campaign purposes. Can be used for vacuum casting of curved newspaper plates.

Blue Ribbon CC Mats

Primarily for curved page casts. Strong base and coating fit this mat for multiple casting in autoplate. As many as 25 casts have been made without impairment.

Blue Ribbon Regular Mats

Sensitive base and coating adapt this mat to utmost fidelity in reproducing copper, zinc or plastic plates.

Blue Ribbon BC Mats

Soft base with stronger facing to combat undercut halftone dots.

Blue Ribbon UCR Mats

Specially developed for conditions where undercutting is frequent.

Certified Silvertone Mats

Highest quality for magazine and book work.

A smile of gratification . . . a justifiable look of pride . . . the knowledge of a job well done . . . because skill and materials worked hand in hand to produce a craftsmanlike masterpiece.

This is the symbol of the satisfied artisan who uses CERTIFIED Blue Ribbon Mats for whatever specific reproduction requirements there may be.

A Blue Ribbon Mat for every molding need

This is an age of specialization, and CERTIFIED has concentrated all its technical and mechanical resources on the production of a wide range of mat types, each pinpointed to meeting the most exacting requirements.

The trade hails the CERTIFIED Blue Ribbon solution to the problem of full-page color . . . registered sets of Blue Ribbon CC Mats, baked on the form . . . and which go into the automatic autoplate for as many casts as required.

In newspaper work, five different types of Blue Ribbon Mats offer every combination of sensitive base and facing needed for special conditions.

For a convincing demonstration of how CERTIFIED Blue Ribbon Mats will meet any production or unusual job requirements you may have, write

CERTIFIED DRY MAT CORPORATION

555 Fifth Avenue Dept. M. New York 17, N. Y.

For dependable stereotyping rely on Certified Dry Mats

Certified BLUE RIBBON MATS

For More Information Circle 36 on Reader Service Card

PRINTING INDUSTRY PATENTS

Covering patents issued Feb. 2, 9, 16 and 23.

All new patents for the printing industry are reported exclusively for PRINTING PRODUCTION by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. PRINTING PRODUCTION is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room:

PHOTOTYPOGRAPHICAL MACHINE

These patents relate to a tape operated phototypographical machine in which changes in the positions of eye piece lenses and grid plates according to point size of the characters to be photographed, as well as the variation in light intensity to correspond, are all made automatically by means responsive to the decoding of an appropriate signal on the control tape. Provisions are also made for insuring that the speed of photographic composition remains constant regardless of the point size of the photographed characters. Nos. 2,923,212, 213, 214 and 215 by Victor M. Corrado, etc., assignors to Mergenthaler Linotype Co.

APPARATUS TO VARY SET WIDTH IN A PHOTOCOMPOSITION SYSTEM

The apparatus uses a keyboard for providing an exclusive potential upon the selection of each character having a predetermined set width to be reproduced, a terminal board having input and output terminals, and mechanism for applying the potential associated with each selected character to a predetermined one of the input terminals. After the selected characters are reproduced successively on a receiver, which receiver is controlled by mechanism connected to the output terminals, conductive paths serve to connect together the predetermined output and input terminals, which energizes the receiver-control in accordance with the set widths of the characters to be reproduced. No. 2,924,157 by Allan Friedman.

INTERRUPTS MATRIX SETTING

To make it possible to permit the interruption of an automatic matrix setting on a linecasting machine which is controlled by perforated tape, this invention provides a selected combination of holes in the perforated strip which, via the scanning device, actuates a lock to hold up operation of the machine whenever it is necessary to insert by hand matrices for certain symbols not contained in the machine magazine. A manual key, which can be actuated at will, is provided for restarting the escapement of the machine. No. 2,924,327 by Kurt Heimel, assignor to Linotype G.m.b.H.

JUSTIFICATION OF COPY

This apparatus uses television or facsimile scanning methods for justification of type and photocomposition copy. A line of characters is first scanned to determine its length and then re-scanned to reproduce the line. No. 2,925,465 by Robert Thomas Nieset, assignor to Girod Associates.

Feeding, Folding, Delivery:

SHEET SLOW DOWN MECHANISM

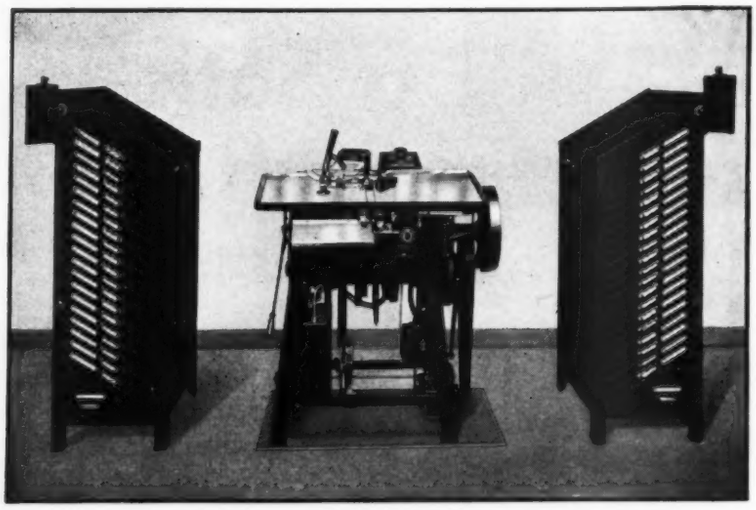
This slow down mechanism is designed for apparatus of the type covered by Patent No. 1,080,036 and for effectively retarding each sheet upon its release by the grippers of an endless chain conveyor for deposit onto a delivery pile. A shaft is mounted for rotation above the path of the sheets, which shaft carries a brake shoe segment and a sheet control disc which are so mounted and operated to effectively slow down the delivery of the sheets. No. 2,924,453 by Henri E. Peyrebrune, assignor to Miehle-Goss-Dexter, Inc.

WEB FEED APPARATUS

A feature of this web feed apparatus is the use of a multiplicity of vertically floating rolls around the underside of path through which the web passes. The floating rolls are gravity biased by weights and springs, the arrangement of which is such as to damp out any pulses present in the web when it reaches the infeed device. No. 2,925,270 by Robert F. Hollis, assignor to Alton Box Board Co.

DELIVERY OF FOLDED SIGNATURES

Printed sheets or folded signatures are continuously delivered one at a time in rapid succession to a moving conveyor where they are assembled in upright



Ludlow Simplicity

Simplicity in relation to Ludlow operation is not just a descriptive term, but a most important factor in the production program.

First of all, the machine itself is simply designed for a single purpose—quick, accurate production of quality slug composition—without "gadgets" that often only hinder efficient operation. This simplicity makes for moderate operating and upkeep expense.

Furthermore, the simplicity of Ludlow matrix assembly and casting enables capable compositors without any previous experience soon to produce satisfactory job and display composition.

Simplicity is only one of many reasons for the utmost satisfaction that hundreds and hundreds of users have found with the Ludlow System of all-slug composition.

Ludlow Typograph Company 2032 Clybourn Ave., Chicago 14

Set in members of the Ludlow Tempo family

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fashion on a moving conveyor without obstructions or pile-ups. Guides and pocket-forming mechanism in the feeding operation cooperate to assure that the sheets or signatures do not fall backwardly to cause obstructions or pile-ups of succeeding signatures. No. 2,925,271 by Harry W. Faeber, assignor to Time, Incorporated.

SHEET DELIVERY DEVICE

This device, for attachment to a printing press, derives its power from the delivery arms of the press and operates in synchronism therewith. As sheets are delivered from the press in a predetermined order, adhesive is applied to a preselected number of the sheets and they are immediately stacked, ready for packaging and shipment. No. 2,925,611 by Charles R. Patterson.

SEVERANCE OF MANIFOLD FORMS

This apparatus provides a manifold assembly made up of both tough and weak sheets and it includes a cutter structure which effects arcuate and rectilinear intersecting cuts in the stock in a manner to assure satisfactory smooth parting and to prevent premature severance. No. 2,926,025 by George E. Sornberger, assignor to Moore Business Forms, Inc.

HANDLING SHEETS OF FOIL

For the more efficient handling of separate various sized sheets of foil on a multicolor printing table using an apron conveyor and suction from underneath the conveyor for controlling the movement of the foil, this table top is provided below the table surface. It includes a plurality of passages which extend in a direction transversely to the direction of movement of the conveyor and are disposed separately from one another, side by side. Each passage opens out in the surface of the table by way of a series of suction apertures running in the direction of the passage. Each passage has a pneumatic feed pipe and a valve for opening or closing the feed pipe as desired. No. 2,923,235 by Heinrich Voegelin, assignor to Fritz Buser A.G.

Platemaking:

PREPARATION OF SILK SCREENS

The composition can be used by an unskilled person to prepare silk screens of consistently good quality for direct photo stencils. The composition consists essentially of 85 parts of powdered protein derived from animal hide having a bloom jelly strength in excess of 400 grams and correspondingly 15 parts of potassium dichromate. The composition can be removed from a screen so that it may be reused. No. 2,924,520 by Walter A. Leeds and Norbert J. Sweete.

PREPARATION OF RELIEF PLATES

For the preparation of relief printing plates, the photopolymerizable compositions of this patent are improved by admixing a cellulose derivative containing free and esterifiable hydroxyl groups taken from the class consisting of cellulose partial esters of saturated aliphatic monocarboxylic acids of 2 to 4 carbon atoms, a dicarboxylic acid anhydride, an addition-polymerizable ethylenically unsaturated compound, an esterification catalyst, preferably a tertiary amine esterification catalyst, and an addition polymerization initiator activatable by actinic light. The mixture is heated at 85 to 180 deg. C. for 0.5 to 60 min. No. 2,923,673 by Stanley Hiram Munger, assignor to E. I. du Pont de Nemours and Co.

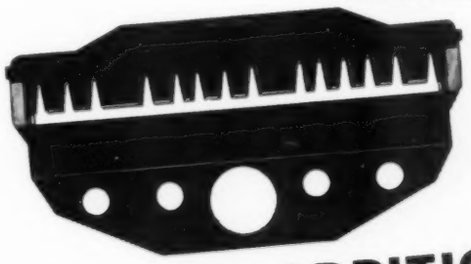
DEPOSITING SECOND METAL LAYER ON PRINTING PLATES

In preparing metallic printing plates or cylinders, this method has been developed for depositing in areas of predetermined outline on a zinc surface a chemically deposited durable metal layer having preferential affinity for printing ink as compared with the portions of the zinc surface that remain exposed. By using a second metal, such as nickel, a metal layer is produced which is fine grained and impervious, which has a very high affinity for greasy printing ink, and which is built up with such thickness as to provide a high degree of durability. No. 2,924,534 by John E. Morse.

PLATE FINISHING MACHINE

For trimming cast stereotype printing plates, this machine includes an arched frame, a longitudinal support for supporting the straight edges of a printing plate for sliding movement of the plate into a position under the arch, and a stop

Star molds and liners for 6-pocket disks are now available. Made of the same close-grained steel as all Star molds, the 6-pocket molds are heat-treated and deep-frozen to give maximum stability under casting conditions.



ANOTHER ADDITION TO THE STAR PARTS LINE...

Star 6-pocket molds and liners are made in all styles from Universal Adjustable to Headletter and, of course, are fully guaranteed. New 6-pocket molds are attractively priced and a generous trade-in will be made for your old mold.

Star Parts also has a service for plants in which a change of measure results in rib interference. In most cases, the offending rib, in both 4- and 6-pocket molds, can be relocated, thus prolonging the life of an otherwise useful mold.

Write for full information on new molds and the Star mold repair service.

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mounted to be stationary along one of the straight edges of the arch and having a stop inwardly biased toward blocking position. A cam in the path of the plate prevents relative dragging movement of the stop across the printing surface of the plate during its sliding movement. No. 2,923,049 by Glenn N. Krueger, assignor to Miehle-Goss-Dexter, Inc.

TWO STEP ETCHING PROCEDURE

The method uses an etching bath of the type covered by Patent No. 2,620,765 and the etching may be carried out in a machine as disclosed in Patent No. 2,699,048. By using a two step etching procedure, blanking off of the etch in certain areas and shouldering and undercutting at the edges of etched areas are prevented. No. 2,925,332 by Lloyd W. Standley, assignor to Garden Photoengraving Co., Inc.

APPARATUS FOR PRODUCING SCREENED MAGNETIC IMAGE

In producing on a magnetizable record sheet from an image sheet a screened magnetic image suitable for image reproduction by offset processes, this apparatus includes an electro-optical pick-up system for scanning an image sheet on its support to develop an electrical signal varying with variations in luminance of successive elemental areas of the image and a reciprocable magnetic recording head for scanning a record sheet on its support synchronously with the image-sheet scanner. The recording head includes an actuating winding and a magnetizing winding. No. 2,924,653 by Sherman M. Fairchild, assignor to Fairchild Camera and Instrument Corp.

PATENT SEARCHES

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, write

INVENTION, INC.
Munsey Bldg., Washington, D. C.

COPIES PATTERN AUTOMATICALLY

The machine permits the production of a printing plate by copying a pattern automatically, employing simple and reliable means to obtain a printing plate having a screen or grid of excellent qualities ready for use in a printing machine and requiring no further etching or other treatment. No. 2,925,464 by Albert Oskar Raible.

SILK SCREEN FRAME

For silk screen printing processes, the frame and screen cloth of this invention are made of metal so as to provide a more durable and efficient screen. The frame is made of aluminum or an aluminum alloy and the screen may be of Phosphor bronze or stainless steel. No. 2,925,774 by Frederick H. Scheeler, assignor to Admiral Corporation.

PLATE ETCHING METHOD

In etching a cylindrical printing plate, avoiding undercutting, this method provides for partly immersing and rotating the cylinder in a pool of etchant, withdrawing a portion of the etchant from both the upper and lower portions of the pool and directing same onto the exposed part of the cylinder. No. 2,926,076 by William Guenst, assignor to Master Etching Machine Co.

ENGRAVING SCANNER APPARATUS

The apparatus provides for photoelectrically scanning pointwise a copy to be reproduced and for simultaneously engraving under control of screen frequency impulses a printing plate blank and for modulating the screen frequency impulses both in time and in amplitude as a brightness control. No. 2,925,463 by Rudolf Hell, assignor to Dr.-Ing. Rudolf Hell Kommanditgesellschaft.

Printing Presses:

IMPRESSION CYLINDER DRIVE

A feature of the impression cylinder drive mechanisms of this invention is that a cam-controlled differential drive, used as a synchronizing device, makes it economically feasible to construct an impression cylinder drive having oval or elliptical

CUTTING COMPOSITION ERRORS IS OUR BUSINESS!

Send for booklet explaining how users save time and money from the first day they install our service.

By using Matrix Contrast Service, errors are caught more quickly and the linecaster is fresher at the end of the shift because Matrix Contrast black and white and color-coded matrices make it so much easier to see and spot characters and type families in the pi tray.

Matrix Contrast Service reduces composition errors as much as 33-1/3%! That's a saving in time alone you can't afford to pass up. There are users of Matrix Contrast Service in your area who will be glad to show you this system in operation. We'll send you their names . . . see the results for yourself.

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MATRIX CONTRAST SERVICE

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gears effecting the variable speed of rotation of the cylinder. This is possible since absolute accuracy of the varying radii need not be maintained and the differential in speeds between the type bed and impression cylinder is completely compensated for by applying a corrective movement to the type bed at the proper time by displacing a rack forming a part of the type bed drive. No. 2,924,172 by Artur Buttner, assignor to Schnellpressenfabrik A.G.

CHANGE OF PRINTING CYLINDERS

To obviate the need for removing bearing cartridges, this intaglio press frame is so constructed that the printing cylinder and shaft on which it is mounted may be removed free from the bearings in which the shaft is journaled in making a change of printing cylinders, the bearings being left mounted in the frame. This saves time and the expense of an additional set of bearings. No. 2,925,037 by Paul E. Fischer.

PERMITS PRINTING BOTH VARIABLE AND FIXED DATA

For general duplicating processes of both short and long runs, these machines have been designed to permit printing, in a single operation, of both variable and fixed data. Patent No. 2,925,029 features a blanket cylinder which includes an adjustable line selector device for printing of all but selected lines of text from a master to a work sheet. Patent No. 2,925,032 uses two separate blankets, one for reproducing fixed or repetitive data and the other for reproducing different portions of variable information. No. 2,925,029 by Francis Ralph Patalon and No. 2,925,032 by Pierre James Etienne Glogaud, assignors to Addressograph-Multigraph Corp.

Break Ground for New Eureka Press—Irl (left) and George Korsen, owners of Eureka Press, Los Angeles, and their mother, Mrs. Jacob Korsen, break ground for the firm's new plant and office building. The new facilities, at 11th and Beacon Sts, are scheduled to be occupied by July 1.

MAKING AN OFFSET BLANKET

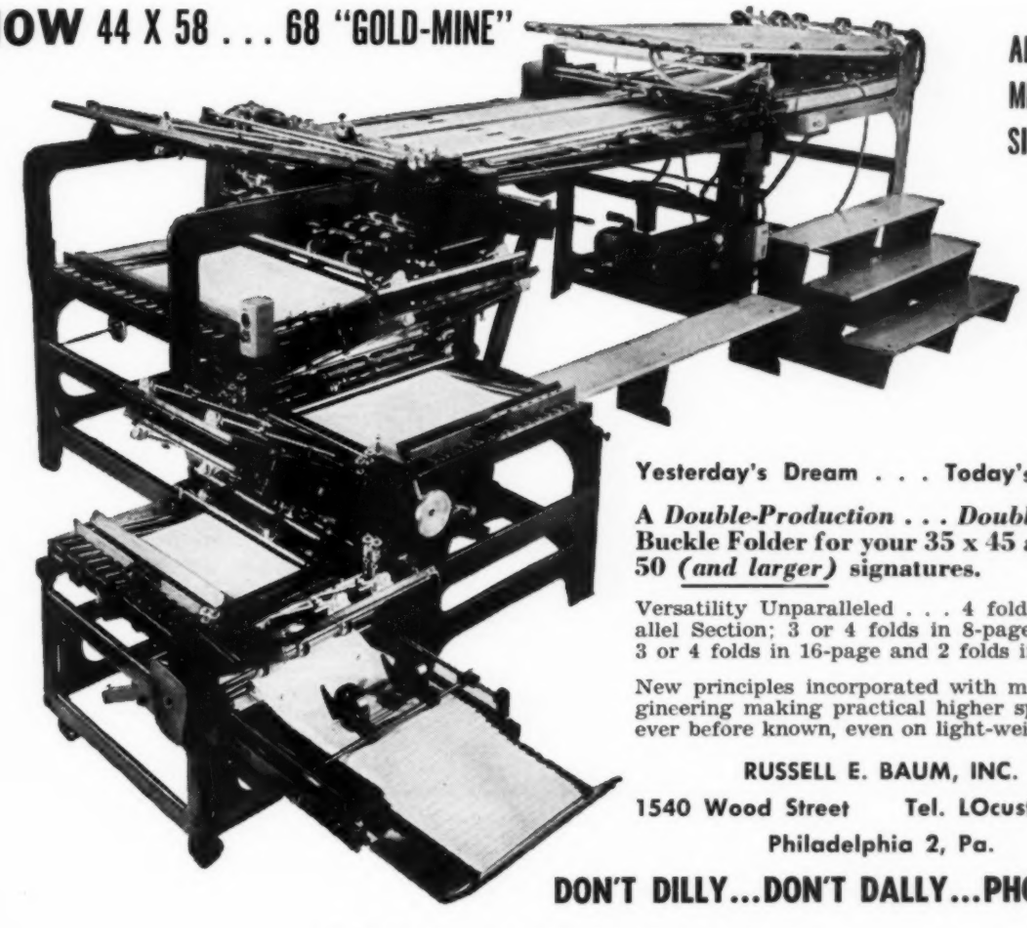
A blanket having the desired quality of tackiness and a uniform thickness is prepared by mixing a polyvinyl resin, a low polymer liquid butadiene-acrylonitrile and sufficient sulfur to vulcanize the mixture, which is heated at 295 to 400 deg. F. The mixture is formed into a blanket and heated until a final set is obtained. No. 2,925,355 by Edward D. Hill.

Binding, Cutting, Perforating:

CASE MAKING MACHINE

In a cyclically operable case making machine, in which each case comprises two hard cover boards and a cover cloth glued to and folded around the cover boards, a sequential series of stations effect the various operations, such as the assembly of the initial case components, and first and second folding of the cover cloth around the edges of the cover boards. No. 2,925,612 by Carl Schramm, assignor to Smyth Manufacturing Co.

NOW 44 X 58 . . . 68 "GOLD-MINE"



ALSO PRECISION MFD. in 36 X 48 SIZE and 39 X 52

Yesterday's Dream . . . Today's Reality

A *Double-Production . . . Double Profit* Buckle Folder for your 35 x 45 and 38 x 50 *(and larger)* signatures.

Versatility Unparalleled . . . 4 folds in Parallel Section; 3 or 4 folds in 8-page Section; 3 or 4 folds in 16-page and 2 folds in 32-page

New principles incorporated with modern engineering making practical higher speed than ever before known, even on light-weight stock

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Helpful Literature

(Continued from Page 29)

Chase Co. The chases are available in aluminum or steel. Circle No. 333 on Reader Service Card.

ALUMINUM PLATES FOR OFFSET USE

Several bulletins describing the Gevacopy process of making aluminum plates for offset duplication have been issued by Gevaert. Reportedly, Gevacopy aluminum offset plates may be made in the same size, enlarged, or reduced in 2 min. by this process. The plates are distributed by Reproduction Products Co. Circle No. 320 on Reader Service Card.

PHOTOENGRAVING EQUIPMENT CATALOG

A catalog describing its line of photoengraving equipment has been published by Tasope Company. Included in the catalog are cameras, whirlers, printing units, routers, etching machines, sinks and developing tanks. The catalog is illustrated and contains the specifications of all items included. Circle No. 353 on Reader Service Card.

STRONG ELECTRIC ARC LAMPS

A folder describing the Strong line of arc lamps has been issued by Strong Electric Corp. Camera lamps, printing lamps, reflectors, transformers and photocomposing lamps are included. Circle No. 313 on Reader Service Card.

KODALITH ORTHO FILM TYPE 3

A folder describing Kodalith Ortho film Type 3 with Estar base has been prepared by Graphic Reproduction Sales Div., Eastman Kodak Co. Reportedly, Type 3 film features high speed orthochromatic emulsion, high contrast and high speed. Circle No. 355 on Reader Service Card.

CURVED PHOSPHORIZED COPPER ANODES

An information sheet dealing with curved phosphorized copper anodes has been prepared by American Brass Co. The anodes are designed for use in maintaining uniform anode width in rotogravure cylinder plating tanks. Advantages of the curved anodes are said to be: An evenly plated cylinder, even deposit of copper; minimum amount of scrap, good contact with the sling which reportedly yields electrical efficiency and fast plating operation. Circle No. 356 on Reader Service Card.

St. Louis Company Acquires Goss Suburban Press—Officials of the Daily Record Co., St. Louis publishing firm, help unload a recently purchased Goss Suburban web offset newspaper press. Consisting of three units in a line with a fourth superimposed over the center floor mount, the press has a capacity of 16 pages. Left to right are: Lucius B. Morse, president; Kenneth M. Washburn, vice president, and Russell C. Wilshusen, vice president and production manager.

Pressroom

HANTSCHO WEB OFFSET PRESSES

A brochure dealing with its line of web offset presses has been made available by George Hantscho Co., Inc. Included in the publication are arrangements of one to four units for single and multicolor work. Circle No. 330 on Reader Service Card.

VULCAN PRESS BLANKETS

A press blanket guide for shop reference is offered by Vulcan Rubber Products Div., Reeves Brothers, Inc. Thickness of various styles of blankets are indicated on the guide. Circle No. 329 on Reader Service Card.

MILLER TWO COLOR LETTERPRESS

The new Miller 21 in. by 28 in. two color letterpress is described in a bulletin made available by Miller Printing Machinery Co. Reportedly, the press has a maximum speed of 4600 sheets per hr. Circle No. 342 on Reader Service Card.

COLOR INK BOOK

A 44 page book of color ink swatches has been prepared by Van Son Holland Ink Corp. of America. A total of 88 color samples, shown in full solid, 50% tint, 25% tone, halftone and in 8 pt. type, are included. Circle No. 308 on Reader Service Card.

ATF SHEETFED LITHOGRAPHIC PRESSES

An index containing specifications on all sheetfed lithographic presses distributed by American Type Founders Co., Inc., has been made available. The booklet is pocket size and entitled *ATF Presses—Specifications*, 1960. Circle No. 316 on Reader Service Card.

PRINTING ON ALUMINUM FOIL

Two booklets dealing with printing procedures for aluminum foil have been published by Anaconda Aluminum Co. One

booklet concerns application of aluminum foil as a display medium for packaging, labeling and advertising. The companion booklet describes production techniques for lithographic printing on aluminum foil. Both publications contain samples of printing on foil. Circle No. 312 on Reader Service Card.

PASTEL AND METALLIC COLORED INKS

A booklet containing samples of pastel and metallic Chromotone printing inks has been prepared by Polychrome Corporation. Included in the literature is a guide for color selection and an instruction sheet for mixing pastel inks. Circle No. 350 on Reader Service Card.

REDUCES NEWSPAPER INK OFFSET

The OMC Slip-Eaz process designed to reduce ink offset and transfer in newspaper printing is described by an information sheet made available by Ortman-McCain Co. Equipment necessary for this process is an OMC Slip-Eaz unit which applies an invisible, protective film of vegetable compound to the paper. Circle No. 351 on Reader Service Card.

DAY-GLO GRAVURE INKS

A technical bulletin and color guides for Day-Glo gravure inks have been made available by Switzer Brothers, Inc. The sample color guides have been prepared in eight colors on label and carton stock. Information on the characteristics of and processing procedures for the Day-Glo inks is contained in the bulletin. Circle No. 354 on Reader Service Card.

Bindery-Mailroom

LAWSON ELECTRONIC SPACER CUTTER

Informative literature describing the Lawson Pacemaker electronic spacer cutter has been prepared by Lawson Company, Div. of Miehle-Goss-Dexter, Inc. The cutter is available in sizes of 40 in., 46 in., 52 in., 60 in., 66 in. and 69 in. Circle No. 325 on Reader Service Card.

DIDDE-GLASER COLLATORS

Information regarding Speed-Klect sheet collators has been prepared by Didde-Glaser, Inc. It is reported that the maximum pickup of the models ranges from 25,000 to 90,000 sheets per hr., depending upon the number of stations and model type. Circle No. 337 on Reader Service Card.

TABLE MODEL FOLDING MACHINE

A new table model folding machine is the subject of a pamphlet issued by Challenge Machinery Co. The unit is friction fed and will handle single and double parallel folds. Maximum sheet size is 17 in. by 22 in. Circle No. 306 on Reader Service Card.

SHERIDAN BINDERY EQUIPMENT

T. W. & C. B. Sheridan Co. has prepared informative literature featuring its inserting - stitching - trimming machinery. According to the manufacturer, the unit will insert, stitch and trim books from 3⅜ in. by 7 in. to 12 in. by 19 in. Circle No. 339 on Reader Service Card.

ADJUSTABLE CONTAINER FOR SHIPPING

A folder on the Adjusta-Pak, an adjustable container for shipping or storage, has been issued by Signode Steel Strapping Co. According to the sponsor, the container is adjustable in length, width and height and has a minimum size of 2268 cu. in. and a maximum size of 34,656 cu. in. Circle No. 349 on Reader Service Card.

NEWSPAPER TOPWRAP AND UNDERWRAP

Informative sheets have been prepared by General Strapping Corp. on the Glomail underwrap and topwrap units. The units consist of two conveyors, one which carries the stacked newspapers to the wrapping applicators and the other which delivers the newspapers to the tying machine. The units are available independent of each other. Circle No. 348 on Reader Service Card.

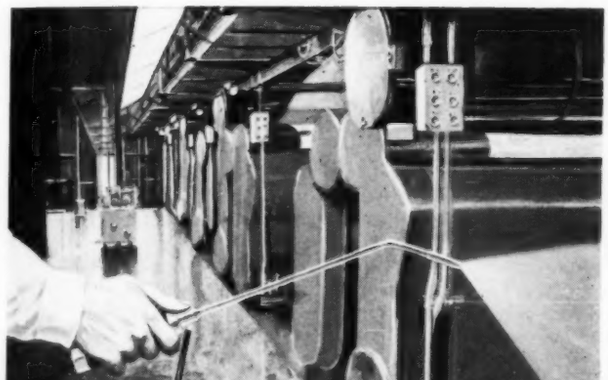
Miscellaneous

INDUSTRIAL TRUCK MAINTENANCE

A booklet dealing with industrial truck maintenance has been published by Elwell-Parker Electric Co. Called *Lift . . . For Industry*, the publication gives particular emphasis to ways of reducing maintenance and downtime costs. Circle No. 345 on Reader Service Card.

OVER-THE-FLOOR WIRING SYSTEM

Information sheets describing an over-the-floor rubber wiring system have been made available by Ideas, Incorporated. Known as Electriduct, the system consists



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America's finest Safety Solvent specially designed for newspaper and printing plants!

IN THE PRESS ROOM
— cleans color ink boxes! ink rail tubes! service conduits!

IN THE COMPOSING ROOM
— cleans type forms! magazines! type mats for Intertype or Linotype Machines!

IN THE ENGINE ROOM
— cleans in-place motors! air-conditioning filters!

Non-Flammable! Non-Toxic! Non-Irritating to Skin!

Saf-Sol air gun provided at no cost by Certified Laboratories.

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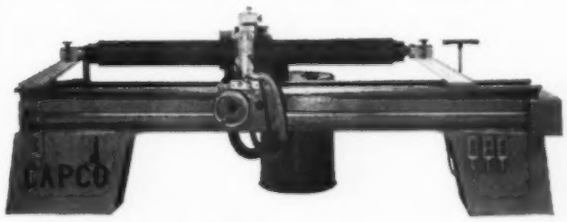
Help Keep Production Costs Down with CAPCO newspaper Equipment

CAPCO ROLLER GRINDER



DESIGNED ESPECIALLY . . .
TO HELP NEWSPAPERS PRINT BETTER
• Grind rubber rollers • Apply powder
• Polish smooth • Practical operation
• Semiautomatic controls

For more efficient newspaper operation use CAPCO Products!

• **CAPCO PORTABLE INK FOUNTAIN**
Increases production, cuts pressroom costs, provides color efficiently.

• **CAPCO REWINDER**
Saves up to 4 rolls of newsprint a day of usable newsprint now going as core waste.

• **CAPCO CORE STRIPPER**
Strips up to 5 cores simultaneously.

• **CAPCO PLATE GAUGE**
Designed for checking thickness of stereo plates.

• **CAPCO FACE-O-TYPE MACHINE**
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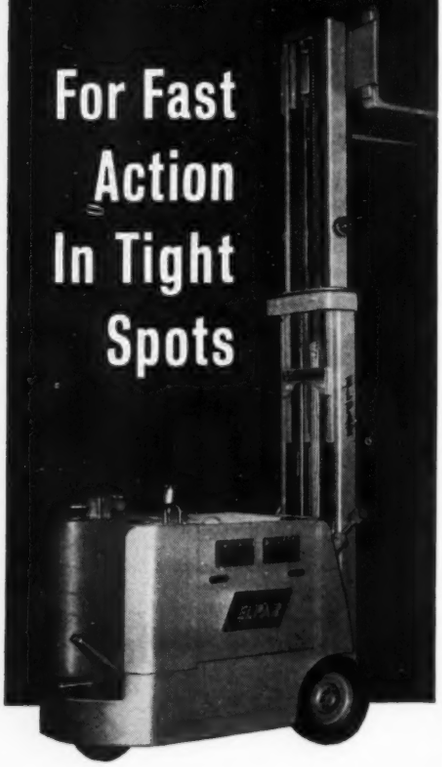

■ **SHORT TURNING**

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Circle 46 on Reader Service Card

of custom made flat rubber encasings for wiring. It is claimed that the rubber casing protects wires to the extent that industrial trucks may be driven over them without damage. Circle No. 311 on Reader Service Card.

REPORT ON MEAD CORPORATION

Mead Corporation has prepared a booklet detailing company philosophy and actions. The booklet is illustrated and is entitled *Horizons of Mead.* Circle No. 346 on Reader Service Card.

EASTERN NEWSPAPER SUPPLY CATALOG

A catalog has been issued giving the specifications of equipment and supplies handled by Eastern Newspaper Supply, Inc. Included is equipment for composing rooms, stereotype departments, photoengraving and pressrooms. Circle No. 341 on Reader Service Card.

ALGRIP ABRASIVE FLOORING

Alan Wood Steel Co. has issued a bulletin describing A. W. Algrip rolled steel floor plate. According to the sponsor, an abrasive is embedded in the floor plate. Algrip may be used as an independent flooring or as an overlay. Circle No. 336 on Reader Service Card.

MATERIALS HANDLING EQUIPMENT

A case history bulletin, 276-2, describing the experience of one printer with various types of materials handling equipment has been prepared by Lewis-Shepard Products, Inc. Equipment described and illustrated in the publication is used in warehousing, processing, shipping and receiving operations. Circle No. 321 on Reader Service Card.

PROFILE OF HAROLD M. PITMAN CO.

Harold M. Pitman Co. has published a 20 page brochure dealing with the history, physical facilities and service programs of the company. The three processes of offset lithography, letterpress and screen process printing were employed to produce the publication. Circle No. 319 on Reader Service Card.

NO-CARBON BUSINESS FORMS

Information on NCR sheet and roll stock for use as office and factory forms has been made available by National Cash Register Co. No carbon paper need be used with the forms. Circle No. 326 on Reader Service Card.

DISTRIBUTION EQUIPMENT CATALOG

The General Electric Co. has released its 1960 edition of the *Buy Log,* an 84 page catalog covering low-voltage distribution equipment. The catalog is issued jointly by G-E's Distribution Assemblies and Circuit Protective Devices Depts. Circle No. 318 on Reader Service Card.

FILTER FOR REMOVING OIL VAPOR

Broadsides on the Sta-Dri compressed air filter for removing oil vapor from compressed air and gas lines have been prepared by Beach Precision Parts Co. Available in eight models of varying capacities, the filter mops up moisture and oil vapors without swelling or increasing in particle size. Circle No. 317 on Reader Service Card.

FINCH OFFSET PAPER SWATCH BOOK

A swatch book of Finch offset papers is being distributed by Finch, Pruyn and Co., Inc. Reportedly, the paper provides good reproduction of solids, and halftones and a bright background for color. Circle No. 322 on Reader Service Card.

WINDING PRINCIPLES AND PRACTICES

A handbook entitled *Principles and Practices of Modern Winding* has been issued by Hobbs Manufacturing Co. Included is a technical appraisal of center shaft winding. Circle No. 309 on Reader Service Card.

BOOKS for the PRINTING INDUSTRY

Printers' Rollers: Manufacture, Use and Care

This book, published in Great Britain, is a study of mainly letterpress and secondly lithographic printers' rollers—their manufacture, use and care. Written by Jack Deller, author of *The Art of Letterpress Machining,* the book provides a panoramic survey of composition, synthetic rubber, plastic, polyurethane, cast rubber and Davis process rollers. Also dealt with are vulcanized oil, Hycast rubber, platen and cylinder press rollers.

In discussing each type of roller, the author considers factors such as storage, causes of wear, setting the roller, ink and its effects, and cleaning. Comparisons are made between various rollers; and their advantages and disadvantages, enumerated. Chapters are devoted to testing accuracy and hardness of rollers and to the problems of repeats and wipes. The book is illustrated and contains a summary of the historical development of the printers' roller. Published with a hardbound cover, the book contains 224 pages.

Copies may be ordered from Charles Skilton, Ltd., London, Eng., at a quoted price of 30 shillings.

Practical Photography

Practical Photography, a non-technical guide for beginners in photography, has been published in a revised addition. In a thorough manner, the author of the book discusses cameras ranging from the simple pin hole type to the more complicated cameras. Techniques from taking effective pictures to developing prints are described. Practical experiments for testing techniques and equipment are also suggested. For the reader who prefers to prepare his own solutions, the author includes an appendix of various formulas.

Author of the book is Robert A. McCoy, associate professor at the University of California, Santa Barbara College. The book is hardbound and contains 291 pages. Copies may be ordered from McKnight & McKnight Publishing Co., Bloomington, Ill. Price is $4.

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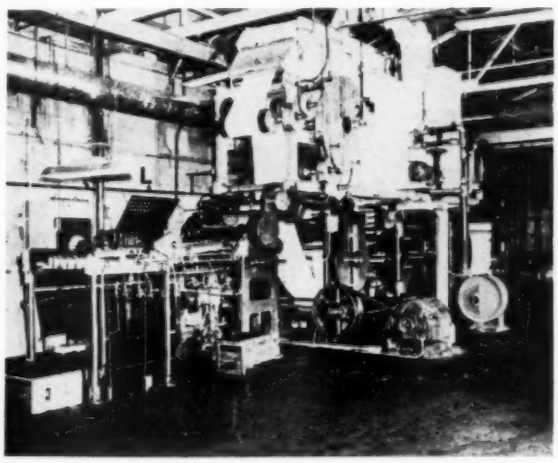

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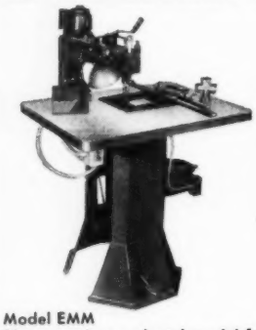

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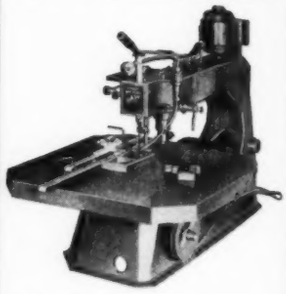

Model BJRM-2
Plate Mortiser
Heavy Duty Jig Mortiser

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Web Offset Problems

(Continued from Page 47)

makes resetting necessary, Rowe explained. "Swelling also will produce roller softening, and swelling will weaken the compound which will cause a shortening of its life. It is also possible by incorrect formulations for a compound to shrink; if it shrinks resetting will be required. Shrinking usually will also be accompanied by hardening of the compound.

Proper Roller Care in Plant

"Care of rollers in the pressroom often is inadequate—improper cleaning is the worst offender of all." The speaker disagreed with the policy in some pressrooms where, because of the expense of labor, the company feels it is cheaper to buy new rollers rather than to clean them. It was Rowe's opinion that rollers should be periodically removed for careful cleaning; in the end this extra care pays off. He cautioned about improper cleaning and use of powerful solvents that will dissolve ink as well as the synthetic rubber compound so that it no longer consists of the right properties.

Improper setting of rollers was possibly the second worst offender, Rowe stated. Lack of roller end lubrication and insufficient spares was another problem.

In the discussion of inks, Al Reitz of Interchemical Corporation, said

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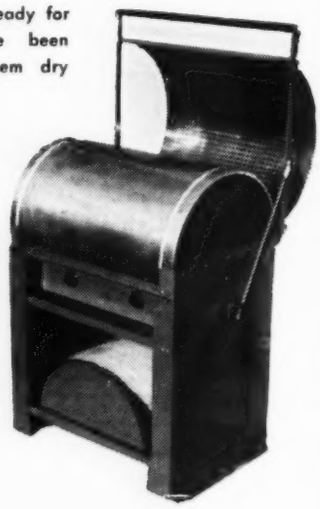

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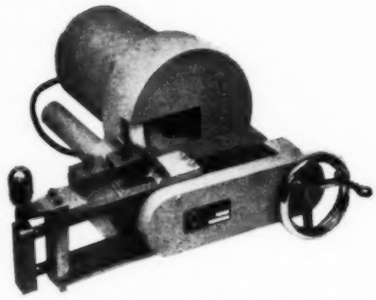

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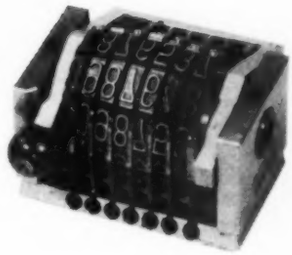

The Roberts FB high speed rotary convex head

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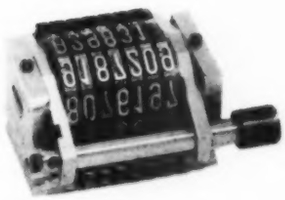

Write or call Roberts Numbering Machine Division, Heller Roberts Manufacturing Corp., 700 Jamaica Ave., Brooklyn 8, N. Y. Telephone Midway 7-4600

For More Information Circle 76 on Reader Service Card

if anyone was interested in starting a research program in his own shop he would suggest that he get in touch with the ink supplier who could help him without going into a long and expensive program.

Harvey E. Sweetland, St. Regis Paper Co., said his company made a survey of web offset printers and decided that if they knew the most pressing problems they would direct their research in these specific areas.

One of the problems he encountered was the tendency at the mill, during shipment, and in the plant for nice round paper rolls to be squeezed and thus produce flat sides. "There are devices available that can be put on paper roll trucks," he said. "The roll can be clamped so it won't drop and yet not gripped tightly enough to flatten the sides."

Lint, he found, was another problem—the lint in the paper roll wrapper which could be eliminated if the man who removes the wrapper would stop to brush off the lint.

B. D. Chapman, production operations manager, Time, Inc., was the banquet speaker on *How Web Offset Can Serve the Publishing Industry*. He said, "We are using more web offset today than ever before, but we haven't thrown away any letterpress equipment either.

"Web offset does not hold the answers to all publishers' needs," he continued, "but in one form or another it can serve all publishers whether they produce cheap pulp products or high quality monthlies."

Small Litho Field

(Continued from Page 39)

in. by 20 in. The printer entering offset usually works up to the 17 in. by 22 in. size press rather than installing it initially.

Another reason for the wide acceptance of the small press is the high speeds attainable. While most of these small units can operate within the range of 3000 to 5000 i.p.h., some of the newer presses are claimed to have max. speeds up to 8000 and 9000 i.p.h.

Most of the duplicator presses are available with special attachments for perforating, scoring, slitting, or numbering. Additional printing units or devices are available on some presses to provide for printing two colors on the same side of the sheet, one color on two sides, or a different color on two sides.

Other devices recently introduced include attachments for printing two colors at the same time from one blanket and controls for maintaining proper ink and water balance. Special formula inks have been developed to also aid in achieving correct water-ink relationships. Press counters that, when preset, will automatically stop the press when the required number of copies have been printed are also available (see PRINTING PRODUCTION, Apr. 1960, page 56).

Presses can be obtained that use the same form roller for both inking and dampening, a feature that is said to result in better and easier color control.

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In a move to permit rapid color changeovers, some manufacturers have designed inking units in such a way that an inked unit can be removed and a clean one inserted in a matter of minutes. This eliminates the need to wash up a press immediately to effect a color change.

Some presses are equipped with sheet caliper gauges and corresponding impression dials which enable the operator to measure the stock to be run and in turn adjust the blanket and impression cylinders to the correct pressure.

Finally, the offset duplicating process should be considered from its benefit to the letterpress printer who has become a combination operation.

Some printers pull several proofs of each letterpress job after it has been made ready on the press. When a subsequent run is required, a choice can be made as to which process to use, providing the job can be run equally well by either method. This practice of proofing is an aid in scheduling jobs, especially during times when the workload for one process may be heavier than for the other.

Perhaps the most important benefit of having an additional process to work with falls in the area of customer service. The small combination shop is able to handle a greater range of work. Because of this, the printer is in a better position to aid the customer in planning and designing his over-all printing needs. The customer service aspect can go a long way toward enhancing the small printer's competitive position.

Time Determines Profits

(Continued from Page 54)

formula you can use to calculate the standard time for any group of work going through the Verticals. The formula is put into work sheet form, so that any office clerk can operate the system. A typical work sheet is shown in Fig. 3.

The clerk counts the number of each item described, multiplies them by their respective time values, and adds the results together to get total standard time. At the bottom of the sheet the clerk divides standard time by actual time taken, which

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gives a percentage of productivity.

A figure of 1.0 would mean the press was operated at 100% productivity; less than 1.0 would mean lower productivity; a higher rating would indicate the pressman extended extra effort.

Clerks Run the System

Cost of measuring productivity daily can be very little. One composing room employs one clerk to measure production from some 40 linecasting machine operators. His only tools are an adding machine and a small calculator. Eventually, they plan to measure both machine and hand work from 180 men with only two clerks. You could cut your cost even more by spot checking productivity rather than measuring it daily.

And, of course, a work sheet like this has other uses: Estimating, work load forecasting and scheduling, comparison of new processes to present methods, etc.

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But well handled, work measurement will repay your investment handsomely. Remember that almost nothing of this kind has been done in the printing industry. The savings to be made are indeed large. They will go to those who go after them.

Printing Teacher Plays Blindman's Bluff with Press—While blindfolded, Joseph J. Riley, teacher, New York School of Printing, performs changeover operations on a 10 in. by 15 in. Heidelberg platen press. Riley volunteered for the experiment during a meeting of the Printing Teachers' Guild of New York, completing the operation in 3 min. Among observers are Ferdy J. Tagle (seated second from left), principal, New York School of Printing, and John A. Fontana (immediately right of Riley), Guild president.

NEXT MONTH: *How standards can be used to evaluate performance of individuals on the job, work load scheduling and control, formulation of improved methods, etc. The June issue installment will conclude the series.*

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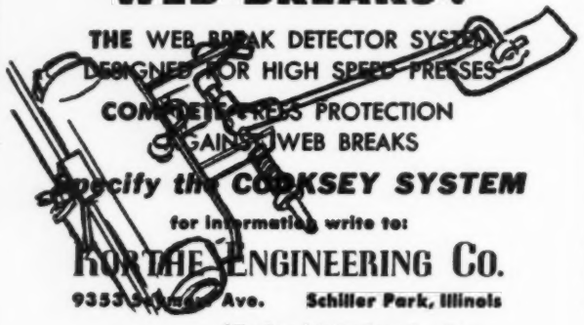

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MEADE AND COMPANY, 454 Statler Office Bldg., Boston 16, Mass. Phone: LIberty 2-9677.

MELBURN O. SIMMONS, Mid-West Advertising Manager, 333 North Michigan Ave., Chicago 1, Ill. Phone: DEarborn 2-6467.

WM. A. AYRES, West Coast Representative, 233 Sansome St., San Francisco 4, Calif. Phone: YUkon 6-2981.

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This generous sample of Carlson Mask also sent free with the answer. Each sheet of Carlson Mask is clearly identified with the Carlson mark of quality.

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QUICKSET INK CONDITIONER
TRIK®
for work-&-turn litho and letterpress . . .
eliminates messy non-offset spray.
1 lb. can $2.20
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Mfrs. of Glazcote, 20/20 Overprint Varnish, 33 & 6-33 Ink Conditioners

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STOP STATIC
CHAPMAN STATIC ELIMINATOR
"Statomatic" MODEL 81
★ GUARANTEED TO REMOVE STATIC AT POINT STATIC BAR IS APPLIED
★ ABSOLUTELY NO SHOCK OR HAZARDS SAFE TO USE
★ COMPACT, COMPLETE EQUIPMENT
★ SMOOTH, MODERN DESIGN
★ LOW COST; YEARS OF TROUBLE FREE SERVICE
★ EASY TO INSTALL, SIMPLY ATTACH TO YOUR MACHINE & PLUG INTO ANY STANDARD 115 VOLT OUTLET
WRITE FOR FREE BULLETIN 79 SHOWING OUR COMPLETE LINE
Chapman Static Eliminators
MANUFACTURED BY
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60 FORE STREET • PORTLAND, MAINE
Originators and Leading Manufacturers of Static Eliminators . . . . . since 1900

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CLASSIFIED RATE—$1.00 per line. Minimum 5 lines, 25 characters per line. Cash with order.

CLOSING DATE — 15th of month preceding date of issue. We will forward all mail addressed to box numbers.

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Must know quality, color, small letterpress production. 25 years old specialty company Los Angeles. Detailed resume, including personal characteristics. Opportunity. Box 609, PRINTING PRODUCTION

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CLASSIFIED ADS in PRINTING PRODUCTION obtain good reader response for selling old and new equipment and supplies.

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SHERIDAN Tabloid Machine

Gather • Stitch • Fold • Bind Trim

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***Flat-Ground* TURTLE**

Mirror-smooth, extra thick top, 24" x 28½", is heavily ribbed to maintain accuracy. Adjusts from 36½" to 39½" working height. 5" x 1½" double ball bearing swivel type composition casters. Heavy-duty, rugged construction assures years of trouble-free service.

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EXCLUSIVELY TO THE TRADE ONLY!

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YOUR Spot Carbon Department

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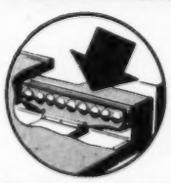
Ball bearing, easy gliding tables on all models. Powerful workholder . . . Greater work capacity . . . Micro elevating saw head on Models B & C.

Unsurpassed for quality and precision. Bench, console, floor models. Priced $650.00 to $950.00.



Tables glide effortlessly on 18 steel ball bearings.

PATE COMPANY 6124 N. Pulaski, Chicago 46, Illinois

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MORRISON

- SAW TRIMMERS
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Add Savings and Profits to All Composing Rooms. Write for Proof.

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LETTERPRESS • OFFSET

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HIGH SPEED PRODUCTION

ECONOMICAL OPERATION

25 Years DRYER Experience

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Mechanism of the Linotype and Intertype

Written for Machinist-Operators, Machinists, Superintendents and Students

Technical operating knowledge of the Linotype and Intertype is available in the 14th edition of this 334 page book. Revised and amplified by Oscar R. Abel and Windsor A. Straw, the text includes 200 illustrations. Information has been added about late improvements in the machines. A practical and essential book for every composing room.

$5.50 per copy

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Doyle **SHEET CLEANERS**

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Write for Free Bulletin

J. E. DOYLE CO. 1270 West 6th St. Cleveland 13, Ohio

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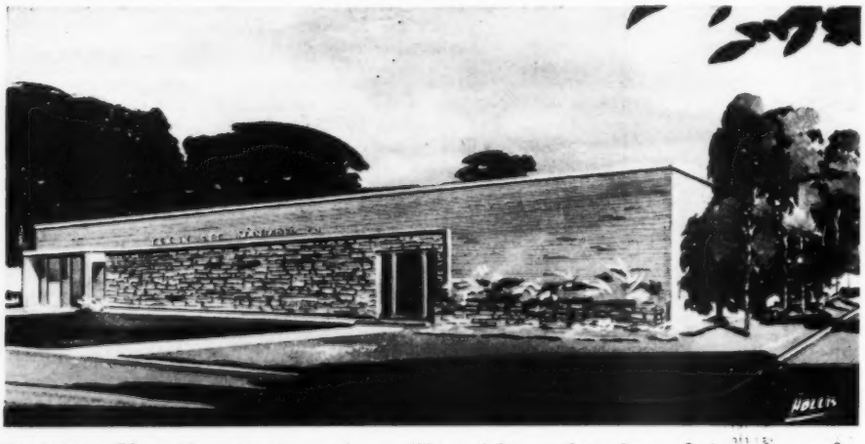
$1 Million Offset Press Sale—Regensteiner Corp., Chicago, has ordered $1 million worth of Miehle offset presses. Included are 13 color units taking 54 in. by 77 in. sheets and two taking 43 in. by 60 in. sheets. At contract signing, standing left to right: G. W. Basset, vice president; J. W. Coultrap, president; C. A. Harwood, Western manager—all of Miehle, and J. E. Eddy, M-G-D chairman. Seated: T. Winter, vice president; I. Winter, president, and E. E. Loebe, executive vice president—all of Regensteiner.

GRAPHIC VIEWS

of the Printing Industry

PDI Opens Fifth Year in Chicago—More than 50 Graphic Arts industry executives attended the open house held to celebrate the opening of the fifth year of operation of the recently enlarged Chicago studio, Printing Developments, Inc., Sub. of Time, Incorporated. Among those attending were, left to right: Marvin Rogers, executive director, Photoengravers' Research; Martin Grayson, PDI Midwest regional manager; Paul Borth, research director, Photoengravers' Research, and Flo Bogdan, PDI scanning engineer.



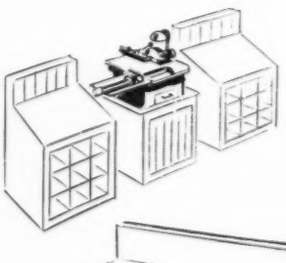
Tex-N-Set Plans New Business Forms Plant—This architect's rendering shows the Texas plant currently being constructed by Tex-N-Set Manifold Co. Located at 1100 Harrison, East Arlington, Tex., the new facilities will be air conditioned and will cover more than 15,000 sq. ft.

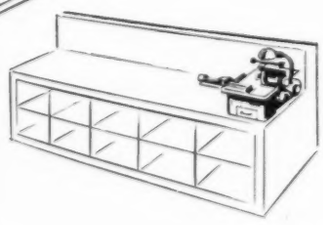
Graphic Arts Professor Receives Award—Melvin Loos (right), director of printing and Graphic Arts professor at Columbia University, receives the Service-to-Industry award of the Navigators. Presenting the citation at a recent luncheon in New York is Don H. Taylor, president, New York Employing Printers' Assn., who served as chairman of the judges who selected Loos.

Craftsmen Meet in Heidelberg Castle—More than 370 European Craftsmen attended a recent meeting of the Craftsmen's Club of Heidelberg, W. Germany. During the meeting, lectures and demonstrations were given on latest Graphic Arts methods. Shown here are several delegates who attended and the ancient castle where the meeting was held.

Weekly Adds Kenro Camera—Jack P. Crawford (left), publisher, California (Mo.) *Democrat* confers with the operator as he loads the new Kenro vertical camera at the California Publishing Co., California, Mo. The firm has also recently installed an Elgrama electronic engraving machine.

Hammond SLUG SAW Glider





FAMOUS *Glider* SPEED AND ACCURACY WITH FLEXIBLE PORTABILITY

Modern production requires the Hammond SlugSaw Glider for the maximum in sawing efficiency. Now you can have the famous Glider speed and accuracy with flexible portability in the Hammond SlugSaw Glider. By placing the SlugSaw Glider in the most advantageous point in the composing room you eliminate unnecessary steps and waiting to use a saw.

Write for complete information.

Hammond Machinery Builders INC.

1604 DOUGLAS AVENUE • KALAMAZOO MICHIGAN

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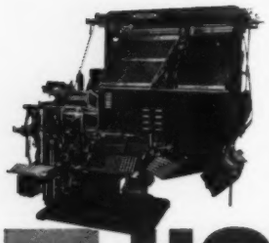
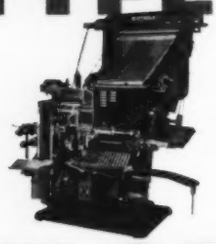


TRIPLE DUTY MODEL G MIXER . . . is a full speed straight matter machine, a wide-range display and headletter machine as well as a timesaving mixer.

HOT TYPE

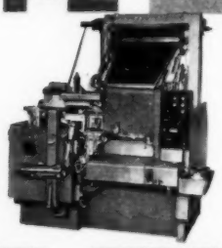


POPULAR MODEL C . . . widely used for manual and automatic production of text, heads and ad work. Available in 1, 2, 3 or 4-magazine models.

COLD TYPE

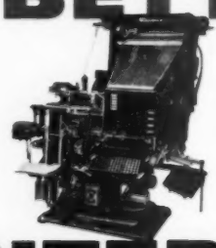
VERSATILE FOTOSETTER . . . more than three times as many used by publishers, printers and typographers as all other photographic typesetting machines combined.

FASTER TYPE



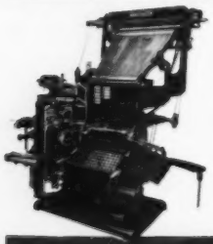
NEW MONARCH . . . world's fastest linecasting machine for automatic operation.

BETTER TYPE



PROFIT MAKING MODEL F MIXER . . . for the efficient production of mixed composition at straight matter speed for book, commercial and newspaper work by either manual or automatic methods.

BUY INTERTYPE



ECONOMICAL MODEL V . . . outstanding performer where operations call for a single magazine text machine.

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